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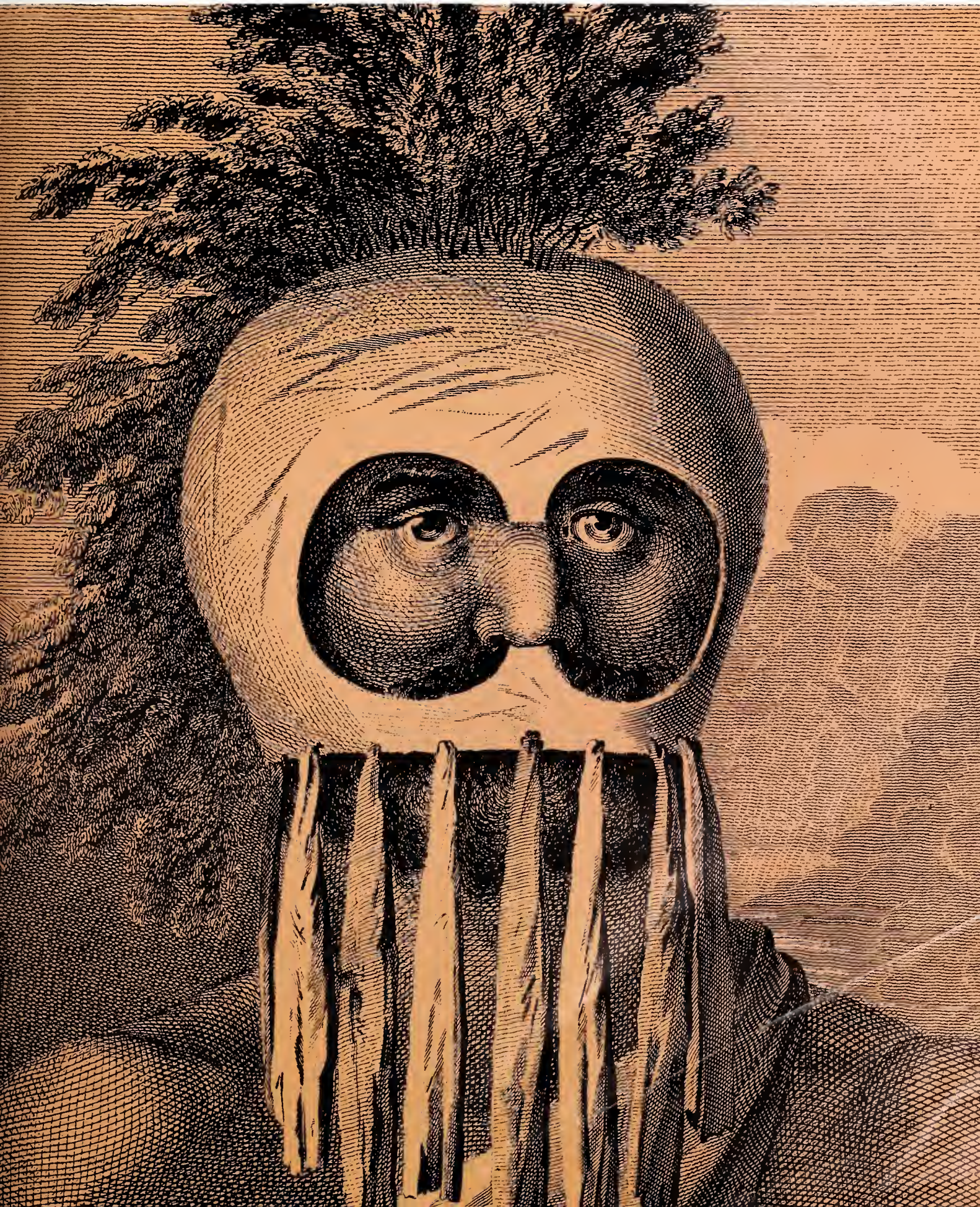
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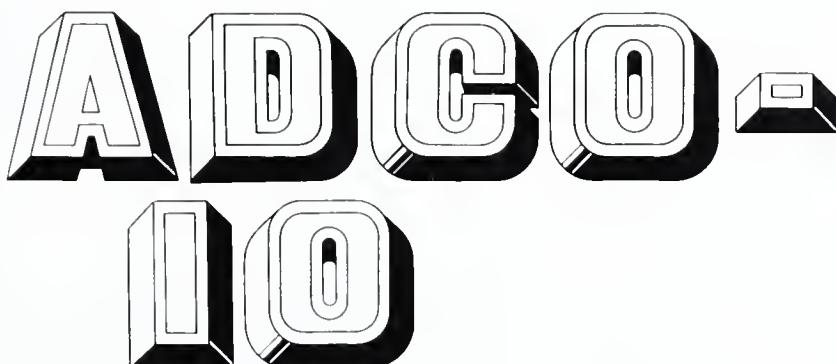
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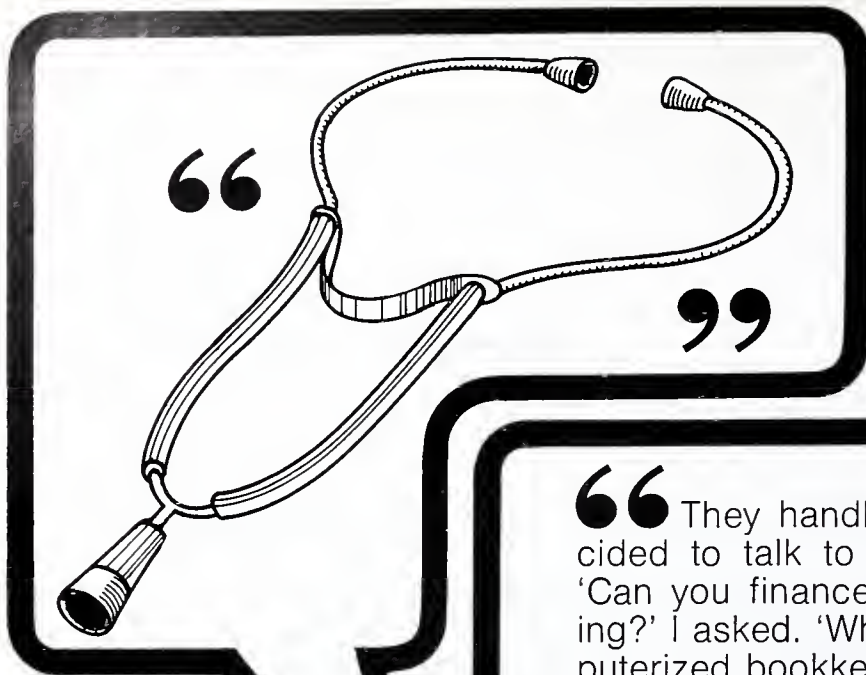
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Insights into the ulcer-prone

This man governs an empire—the section of beach that he combs—and he may have much in common with a business tycoon. Both may be ulcer-prone for similar reasons: both may be difficult to please—both may be demanding, especially of themselves. While there are many types of duodenal ulcer patients, it has been noted^{*} that, characteristically, these individuals are not easily satisfied.

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^{*}Palmer, E. D.: *Clinical Gastroenterology*, ed. 2, New York, Hoeber Medical Division, Harper & Row, 1963, p. 206.

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Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

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*Chinese restaurant syndrome?
Not in Hawaii!*

Long-Term Health Effects of Dietary Monosodium Glutamate

GENEVIEVE GO, FRANK H. NAKAMURA, GEORGE G. RHOADS, M.D., and
LOUIS E. DICKINSON, M.D., Dr.P.H.,* *Honolulu*

Health data collected by the Honolulu Heart Study were utilized to study selected long-term health effects of dietary monosodium glutamate. The findings fail to confirm some of the previously reported effects. There was no increased recall of transient neurological symptoms, such as paresthesias, among those using MSG. The prevalence of myocardial infarction and stroke was less among MSG users, but final conclusions regarding this association must await later analysis of incidence data. Use of MSG was found to have no relationship to blood glucose and cholesterol. MSG consumption did not contribute to excessive weight among the study subjects.

A PHENOMENON involving numbness at the back of the neck, radiating to the arms and back, associated with generalized weakness and palpitation lasting about two hours, after eating in certain Chinese restaurants, was first described in 1968.¹ Other symptoms, as reported by Schaumberg and Byck,² involve a burning sensation, usually over the chest, then spreading to the neck, shoulder, arms, abdomen, and thighs; tightness and pressure over the cheek bones; and pressure over the precordium. The weight of evidence pointed to monosodium glutamate (MSG), a vegetable protein used as a flavor enhancer, as the cause. Other effects reported included: modification of the retinas of normal and rodless mice;³ brain lesion, obesity, stunted skeletal development, and female sterility in mice;⁴ decrease in blood ketone and increase in blood

glucose levels in sheep;⁵ decrease in dental erosion in mice;⁶ brain lesions in an infant Rhesus monkey;⁷ hyperglycemia in rats;⁸ and decrease in serum cholesterol and associated beta-lipoproteins in man and gerbils.⁹ The present study investigates the relationships between human dietary consumption of MSG and certain neurological symptoms, prevalence of stroke and myocardial infarction, serum levels of blood glucose and cholesterol, and weight.

METHODS

Study population.—We used health data collected by the Honolulu Heart Study, a prospective cohort study initiated in 1965 in conjunction with similar efforts in Japan and California to study risk factors in cardiovascular disease among Japanese men. The method of identifying the complete cohort of 11,157 resident Japanese men born between 1900 and 1919 has been described.¹⁰ Of the complete cohort, 8,006 (71.8%) completed the first examination between October, 1965, and November, 1968. A second examination for incidence data and new information has been administered, the interval between examinations being approximately two years. Of the 8,006 initially examined men, a sub-group of 5,295 had completed their second examinations at the time of the present analysis, and from these, 357 records were deleted due to one or more items of missing information, leaving a sample of 4,938 men for our analyses. Re-examinations were scheduled in such a way that selection biases are unlikely to have occurred, and the sub-sample may be considered representative.

* School of Public Health, University of Hawaii, Honolulu.
Received for publication March, 1972.

Exposure classification.—Complete dietary histories were obtained from each participant at the first examination. The data relating to dietary frequency of MSG were categorized and coded as follows: use of MSG almost never (0); in cooking only, less than once a day (1); in cooking only, once or more a day (2); in cooking and at table (3); unknown (9). The interviewers coded responses in such a way that consumption was considered to be progressively greater from MSG category 0 to 3, ie, $3 > 2 > 1 > 0$. It is recognized that these dietary frequency data do not necessarily represent relative quantities consumed.

Four interviewers administered this questionnaire—two dietitians and two nurses. Table 1 shows the frequency and percentage of the four categories of replies each interviewer recorded. Interviewers 1 and 4 show good agreement, with minor inconsistencies apparent for interviewers 2 and 3, who together interviewed only eight per cent of the sample. The dietary interviews were all completed before the Chinese restaurant syndrome was first described, and they were also done prior to contact for medical history and physical examination. The MSG information was considered of so little importance that it was initially not even coded, and it is unlikely that any diagnosis could have been influenced by knowledge of MSG consumption.

Disease classification.—We did not attempt to classify the Chinese restaurant syndrome itself, but report instead several transient neurological symptoms. Cerebrovascular accident (CVA) was coded *negative* when no history suggestive of CVA was present, *positive* when a history suggestive of CVA plus any neurologic deficit consistent with CVA was present, and *doubtful* when a history suggestive of CVA but not considered diagnostic of CVA was present in subjects without neurologic deficit. Cases with a history considered diagnostic or highly suggestive of CVA, in which there was no neurologic deficit at time of examination were coded as *borderline*. Myocardial infarction (MI) was coded *negative* when no clinical history suggestive of acute MI was present and the EKG

was “negative” or “doubtful” for MI, *positive* when a history considered consistent with acute MI with characteristic EKG changes was present, and *doubtful* when a history suggestive of MI plus an EKG negative for MI was present. Cases with a history considered diagnostic or highly suggestive of MI where the EKG was doubtful or negative for MI, were coded as *borderline*. Angina pectoris (AP) was coded *negative* when no history suggestive of AP was present, *positive* when a history considered diagnostic of AP was present, and *doubtful* when a history, obtained by the examining physician, felt to be suggestive but not diagnostic of AP was present. In the present study all borderline cases were counted as positive and doubtful cases were considered negative. For the analyzed sample of 4,938 men, the percentages of positive, borderline, doubtful and negative for MI were 0.4, 1.6, 0.3 and 97.7 respectively, and for stroke were 0.6, 0.4, 0.3 and 98.6.

Blood chemistry.—All samples were identified by number and sent to the USPHS Heart Disease Control Program Laboratory in San Francisco. This laboratory determined glucose by utilizing the potassium ferricyanide-potassium ferrocyanide oxidation-reduction reaction. The cholesterol determination was based on the reaction of concentrated sulfuric acid and ferric chloride in acetic acid.

Weight.—The weights of all men were converted to the measure of *relative weight*, which was defined as actual weight ÷ (divided by) ideal weight × (times) 100. Ideal weight was based on a tabulation of mean weight by height for all members of the cohort whose triceps and subscapular skinfold thickness measurements summed to 10-12 mm.

RESULTS AND DISCUSSION

Age.—Table 2 shows the age distribution in each of the MSG categories. It shows no material differences among the categories, making it unnecessary to account for age in the comparisons made subsequently.

Neurological symptoms.—The relationship between MSG use and the occurrence of selected transient neurological symptoms may be seen in

TABLE 1.—Distribution of recorded dietary categories by interviewer, with per cent in parentheses.

INTERVIEWER	MSG USE				Total
	Never (0)	Cooking < once daily (1)	Cooking ≥ once daily (2)	Cooking and at table (3)	
1	169 (7.4)	1,254 (54.9)	629 (27.6)	231 (10.1)	2,283 (46.3)
2	27 (13.1)	94 (45.6)	71 (34.5)	14 (6.8)	206 (4.2)
3	19 (9.8)	66 (34.0)	107 (55.2)	2 (1.0)	194 (3.9)
4	167 (7.4)	1,062 (47.1)	719 (31.9)	307 (13.6)	2,255 (45.6)
TOTAL	382 (7.7)	2,476 (50.1)	1,526 (30.9)	554 (11.3)	4,938 (100.0)

TABLE 2.—Age distribution according to MSG category, with per cent in parentheses.

AGE	MSG USE				Total
	Never (0)	Cooking < once daily (1)	Cooking ≥ once daily (2)	Cooking and at table (3)	
45-49	100 (26.2)	714 (28.8)	413 (27.1)	116 (20.9)	1,343 (27.2)
50-54	135 (35.3)	848 (34.2)	541 (35.4)	163 (29.4)	1,687 (34.2)
55-59	67 (17.5)	489 (19.8)	258 (16.9)	125 (22.6)	939 (19.0)
60-64	63 (16.5)	356 (14.4)	253 (16.6)	113 (20.4)	785 (15.9)
65-69	17 (4.4)	69 (2.8)	61 (4.0)	37 (6.7)	184 (3.7)
TOTAL	382 (7.7)	2,476 (50.1)	1,526 (30.9)	554 (11.3)	4,938 (100.0)
Mean Age	54.03	53.51	53.84	54.97	

Table 3. Several symptoms occurred significantly less often among those ingesting the largest amounts of dietary MSG, their risk being approximately a third as great as non-users. Some of these symptoms are similar to those reported as occurring spontaneously after restaurant meals¹ or reproduced by intravenous MSG injection.¹¹ This failure to confirm previous reports may suggest that the usual amounts received during home food consumption are without physiological effect. However, there are two other factors to be considered: 1) Schaumberg and Byck¹¹ showed that there are wide individual differences in MSG tolerance threshold, which may be genetic, thereby making generalizations to other human populations uncertain. 2) A lifetime of MSG use might have led to the development of physiologic tolerance in the individuals comprising this study population.

It also must be considered that these data on symptoms are based upon recollection of any past episode by the study subjects. Memory is of course not always reliable, but with respect to these results it is difficult to explain a differentially poorer memory among the MSG users. In the

next section it will be seen in fact that heavy MSG consumers have experienced fewer strokes in the past, and therefore would not have impaired recall on this account. However, the Japan-born Japanese are somewhat over-represented in the highest MSG consumption category (19.2% in category 3, 6.9% in category 0), and it is possible that communication problems were somewhat greater in this group than the Hawaii-born Japanese.

Stroke and myocardial infarction.—Table 4 shows the prevalence of stroke, angina, and MI according to MSG category. It is seen that stroke and MI occur significantly less often among those reporting a greater use of MSG, their risk again being decreased by about a third. This association, however, is probably not causal but due instead to the use of prevalence rather than incidence data. It is reasonable to suppose that men who have had a stroke or MI sometime in the past are likely to have a decreased food intake subsequently, and that the dietary reduction is probably accompanied by a diminished intake of seasoning. When the dietary data for the group of men included in this study were examined, it was found in fact that the mean daily caloric in-

TABLE 3.—Prevalence per 10,000 of selected transient neurological symptoms by MSG category, with relative risk and X^2 .

NEUROLOGICAL SYMPTOM	PREVALENCE PER 10,000		Relative Risk*	X^2 †
	MSG Never (0)	MSG Cooking & Table (3)		
1) Blurring, haziness, or cloudy vision	1,041	484	0.47	10.2***
2) Numbness and tingling of arm-right	628	235	0.37	9.2***
3) Numbness or paralysis of face	270	55	0.20	7.2***
4) Numbness and tingling of face-right	105	0	0	5.8**
5) Headache at back of head or neck	946	683	0.72	2.1
6) Numbness and tingling of face-left	130	54	0.41	1.6
7) Lightheadedness or dizziness	1,425	1,190	0.84	1.1
8) Numbness and tingling of arm-left	524	379	0.72	1.1
9) Headache	838	720	0.86	0.4

* Relative risk = prevalence among MSG (3) users ÷ prevalence among MSG (0) users.

† Chi-square values marked with three asterisks (***) are statistically significant at the .01 level. Those marked with two asterisks (**) are significant at the .05 level.

TABLE 4.—Prevalence per 10,000 of stroke, angina pectoris, and myocardial infarction, according to MSG category.

DISEASE	PREVALENCE PER 10,000		Relative Risk*	X ² †
	MSG Never (0)	MSG Cooking & Table (3)		
1) Stroke (history)	532	92	0.17	16.28***
2) M.I. (history)	367	127	0.34	5.96**
3) M.I. (diagnosis)	402	147	0.37	5.87**
4) CVA: Prior to 1st exam (diagnosis)	291	109	0.37	4.16**
5) Angina pectoris (diagnosis)	238	163	0.68	0.67
6) Angina pectoris (history)	52	36	0.69	0.14

* Relative risk = prevalence among MSG (3) users ÷ prevalence among MSG (0) users.

† Chi-square values marked with three asterisks (***) are statistically significant at the .01 level. Those marked with two asterisks (**) are significant at the .05 level.

takes for men who had experienced strokes as compared with those who had not were 1,848 and 2,342 calories respectively, and for those who had had MI's compared with others were 1,932 and 2,342 calories.

A proper analysis of the relationship between MSG ingestion and chronic disease must await the accumulation of sufficient numbers of incidence cases (ie, those occurring subsequent to the first examination), which will require several more years for detailed analysis. A preliminary analysis of 85 incidence cases of all types of coronary heart disease (CHD) suggests that the incidence is very similar among those using MSG most and not at all. The CHD incidence rates for MSG users (category 3) and non-users (category 0) are 126 and 129 per 10,000 respectively, a difference which could easily be due to chance. Thus, at the present time there does not appear to be any evidence to support the extreme view that MSG represents a threat to the public's health.

Blood chemistry.—Table 5 shows means for blood glucose and cholesterol according to MSG use category, and it is apparent that none of these means vary materially by MSG exposure. One-way analysis of variance was applied, and the F ratio based on 3 and 4,888 degrees of freedom was 1.97 for blood glucose and 1.20 for blood cholesterol, neither one statistically significant.

Thus, no relationship between MSG use and blood glucose and cholesterol was found.

The failure to find an inverse relationship between MSG ingestion and blood cholesterol differs from a previous report,⁹ but it must be considered that the dietary dose received here was much smaller than the oral dose given in the other study. Furthermore, this particular population already has a mean cholesterol somewhat lower than average for the United States (232.8 mg% for age 55-64).¹²

Japanese cooking is unique in its traditional use of MSG, making hypotheses of disease association attractive. But these results would seem to indicate that lower cardiovascular disease mortality rates among Japanese in Japan and Hawaii¹³ are probably not related to an MSG-induced suppression of blood cholesterol.

Weight.—Stepwise multiple regression analysis was used to examine the relationship between MSG consumption and excessive weight. Using relative weight as the dependent variable, age, caloric intake and a physical activity index were forced to control for these variables while studying the effect of MSG. Although several variables proved to be good predictors of relative weight (regression coefficient significant at .01 level by t test), namely subscapular and triceps skinfold thickness measures and serum triglyceride and uric acid levels, MSG was not strongly or signifi-

TABLE 5.—Mean blood glucose and cholesterol levels (mg%), with standard deviation in parenthesis, according to MSG category.

	MSG USE			
	Never (0)	Cooking < once daily (1)	Cooking ≥ once daily (2)	Cooking & at table (3)
Mean glucose (mg%)	157.1 (53.76)	158.7 (56.02)	160.6 (57.23)	164.5 (54.61)
Mean cholesterol (mg%)	218.4 (36.72)	219.7 (37.54)	220.3 (39.21)	216.9 (37.65)

cantly correlated ($r=.017$). It may be concluded that regular home consumption of MSG does not contribute to weight gain among the study subjects.

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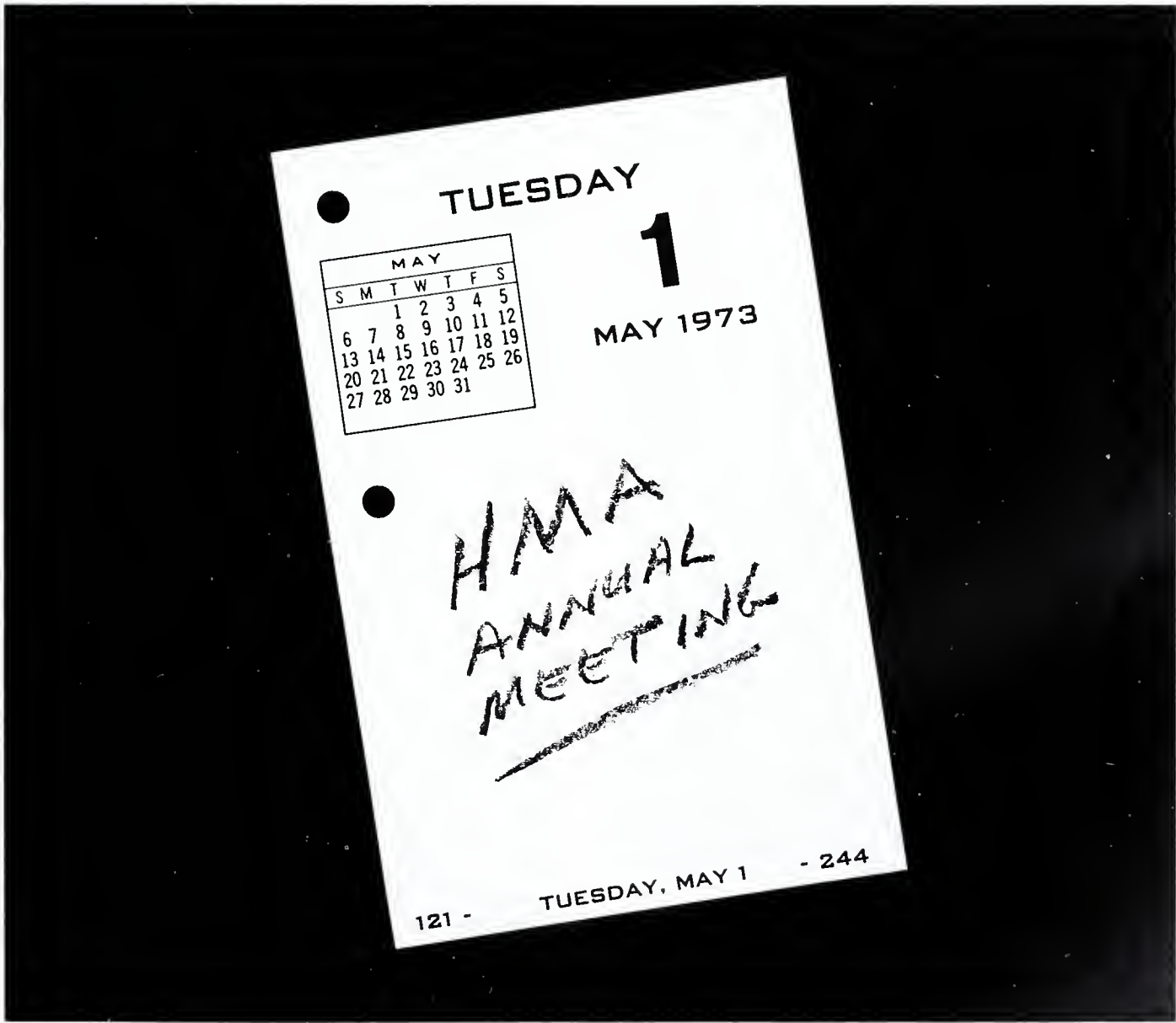
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Midzonal Liver Necrosis Associated With Fluorinated Anesthetic Agents

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Considerable attention has been given to the relationship of fluorinated anesthetic agents and liver injury. Halothane, the most commonly implicated anesthetic, typically produces a centrilobular hepatic necrosis.

HEREIN IS reported a patient who died of liver failure after having received two different fluorinated anesthetic agents (halothane followed by trifluoroethyl vinyl ether), ten days apart. Midzonal liver necrosis was discovered at autopsy. The association of this particular type of liver injury and fluorinated anesthetics has not been previously reported.

REPORT OF A CASE

A 72-year-old Oriental woman was admitted to the hospital because of hematuria, dysuria and a 25 lb weight loss.

The patient had had two previous operations; a left mastectomy for adenocarcinoma and a cholecystectomy with choledocholithotomy, respectively, two and seven years prior to admission. No history of allergies to medications was elicited.

On admission, the patient was thin and emaciated and weighed 88 lbs. She was 5 feet tall. Her blood pressure was 124/56 mm Hg, temperature 98.6F (37C), and pulse 48 beats per minute. Her chest was clear on auscultation and her heart was normal. The abdomen was soft with slight suprapubic tenderness. No organomegaly was noted. Rectal digital examination revealed a large firm mass in the rectouterine pouch which extended to the lateral pelvic wall.

Hematologic examination was not unusual. Serum chemistry data were within normal limits and included glucose, blood urea nitrogen, bilirubin, serum glutamic oxalacetic transaminase (SGOT), serum glutamic pyruvic transaminase (SGPT), alkaline phosphatase and albumin. Urinalysis displayed innumerable leukocytes and 50-60 erythrocytes per high power field. Electrocardiograph showed atrial fibrillation, with slow ventricular response.

Cystoscopy, with halothane as the general anesthetic, was performed on two separate occasions, eight days apart. A papillary tumor involving the bladder wall was noted, and histologic examination revealed adenocarcinoma. Barium enema showed an annular constricting neoplasm of the midsigmoid colon. Extension to the urinary bladder was evidenced by visualization of a fistulous tract from the colon to the bladder and presence of barium in the bladder lumen.

A clinical diagnosis of adenocarcinoma of the sigmoid colon with extension to the urinary bladder was made. Ten days after the initial cystoscopy, under general endotracheal anesthesia with trifluoroethyl vinyl ether and nitrous oxide, a total pelvic exenteration, which included cystectomy with urethrotomy, hysterectomy, bilateral salpingo-oophorectomy, vaginectomy, and abdominoperineal resection, was performed. A well differentiated papillary adenocarcinoma of the sigmoid colon was diagnosed pathologically. The tumor extended through the colonic wall to the urinary bladder and posterior cul-de-sac. One paracolic lymph node was involved by tumor, of twelve sectioned. No liver or extrapelvic tumor masses were seen. There was no hypotension and the patient tolerated the procedure well. Five units of packed red blood cells were administered.

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The immediate postoperative course was uneventful. On the sixth postoperative day, the patient became icteric and disoriented, but remained afebrile. Blood chemistry values at this time were bilirubin, 10 mg per 100 ml; SGOT, 4,360 units; SGPT, 338 units; and alkaline phosphatase 52 Keith-Armstrong units. Hepatic failure worsened and there was a continued rise in liver function test values. Death occurred on the 11th postoperative day.

Autopsy Findings: The body was that of an icteric, emaciated Oriental woman who looked her stated age of 72 years. The left breast was absent. A recent linear vertical sutured surgical incision was present in the midabdomen. A colostomy was found intact on the left and an opening for an ileal bladder was present on the right side of the anterior midabdomen.

On opening the body, no excessive fluid was found in the thorax or abdomen. The heart weighed 240 grams. Petechiae were present on the epicardium. The myocardium and valves were normal. The coronary arteries showed slightly thickened walls with minimal atherosclerotic plaque formation. There was slight focal acute bronchopneumonia and edema of both lungs. Examination of the spleen, adrenal glands, thyroid, and upper gastrointestinal tract was normal. The gallbladder was absent and no calculi were found in the common bile or pancreatic ducts. The ileal bladder and colostomy were patent. The kidneys showed bile and hyaline casts in the renal tubules and slight arteriolar nephrosclerosis. Oxalate crystals were not present in the renal tubules. No residual tumor was found in the pelvis or remaining portions of bowel. The anastomotic sites of the abdominoperineal resection were intact. Examination of the brain was normal.

The liver weighed 760 grams. The surface was coarsely granular and yellowish-green. Microscopically, the architecture was preserved and there was no cirrhosis. There was marked centrilobular bile stasis, both intracellular and intra- canalicular, with parenchymal cells in this region intact. In the midzone (Zone II of the liver lobule), practically all cells were necrotic and showed pyknotic or karyolytic nuclei with lysis of cytoplasmic membranes (Figs. 1 and 2). Interspersed among the necrotic cells were red blood cells and occasional neutrophils. The periphery of the liver lobule and portal areas were normal.

DISCUSSION

Fluorinated anesthetic agents have been implicated in producing hepatocellular damage in certain susceptible individuals.²⁻⁵ The exact etiology of this adverse response has not been fully elucidated and may be due to cell mediated hyper-

FIG. 1.—Low power photomicrograph of liver at autopsy. Note midzonal location of necrotic area of liver lobule (arrow) between the portal areas (PA) and central vein (CV). $\times 75$.

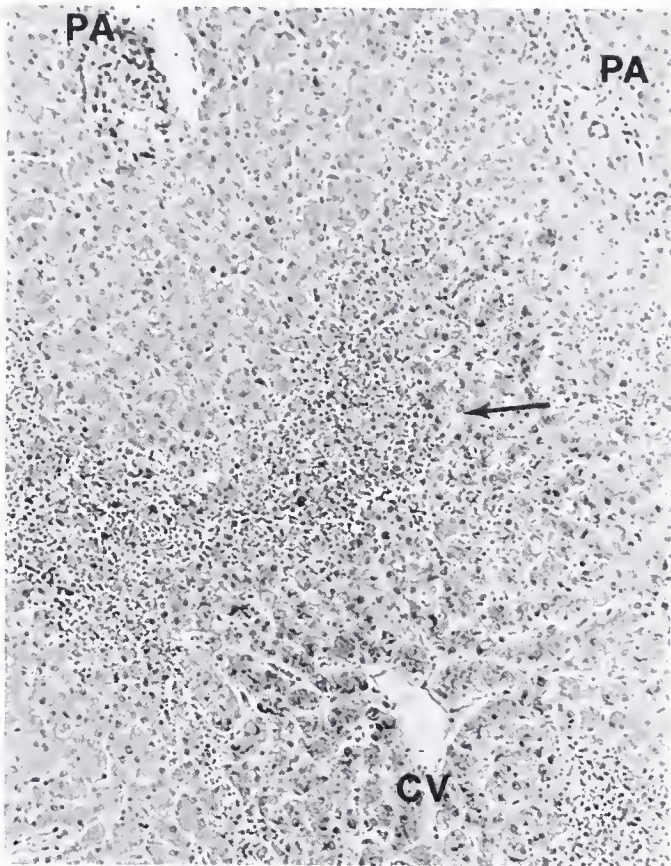
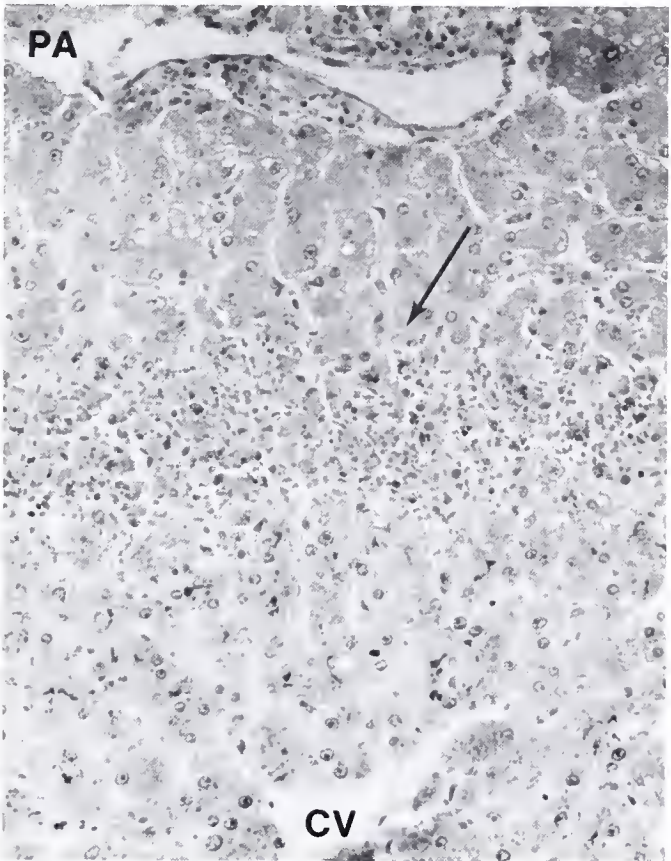


FIG. 2.—Higher power view of liver. Note that the necrosis is localized to the midzone of the lobule and the parenchymal cells near the central vein (CV) and portal tracts (PA) are spared. $\times 150$.



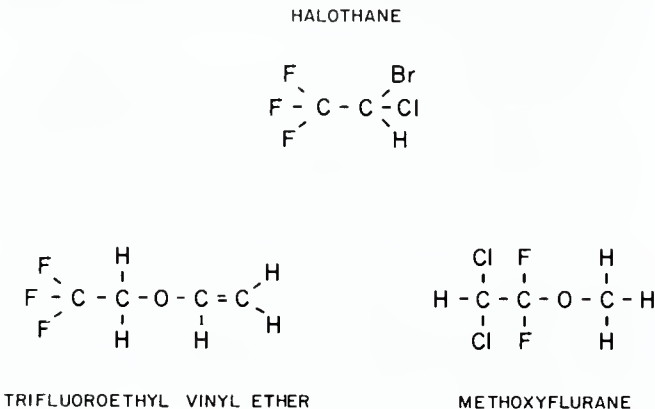
sensitivity. Halothane has been the anesthetic most often designated as being responsible for this type of liver damage. Methoxyflurane has been associated with renal as well as liver dysfunction.^{7, 8} Trifluoroethyl vinyl ether has shown only minimal hepatotoxicity.⁹⁻¹²

The usual clinical course of liver toxicity due to fluorinated anesthetic agents begins several days postoperatively, and may lead to liver failure and death.^{13, 14} Pathologic studies of liver damage induced by these agents have invariably shown centrilobular necrosis.¹

A case is presented which has many of the subjective findings of anesthetic hypersensitivity, ie, a prior history of gallbladder disease, normal liver function on admission, surgery and anesthesia with a fluorinated compound. Then, a one week post-operative asymptomatic period, followed by jaundice, liver failure and death.

Significant differences exist between this case and prior reports of fluorinated anesthetic liver injury. In our patient, trifluoroethyl vinyl ether was the anesthetic used during the abdominoperineal resection. Halothane was administered for cystoscopy on two prior occasions, ten days and then again two days prior to the abdominal surgery. These compounds have a similar chemical structure (Fig. 3). It is conceivable that these agents, either in association, or trifluoroethyl vinyl ether alone, may have provoked a hypersensitive state in this patient, thereby inducing hepatic necrosis.

FIG. 3.—Chemical structure of halothane, methoxyflurane and trifluoroethyl vinyl ether.



Midzonal liver necrosis was found in our patient. This particular type of liver cell death is an exceedingly rare pathological finding except when associated with yellow fever.¹⁵ Previous reports of the pathology of liver injury induced by fluorinated anesthetics have revealed centrilobular necrosis.¹ The reason for the occurrence of a midzonal location of necrosis in our patient is purely speculative, but may have to do with the combination of anesthetic drugs used.

No signs or symptoms of liver disease were present in our patient prior to hospitalization. Liver function studies on admission (which included bilirubin, protein, albumin, SGOT, SGPT, alkaline phosphatase and electrolytes) were normal. Thus, yellow fever, or other antecedent liver disease, appears most unlikely as a cause of the hepatic necrosis.

The interval between surgery and onset of symptoms points strongly to some type of hypersensitivity response. Prolonged hypotension or cardiac failure ordinarily produce centrilobular liver necrosis, as do most chemical toxins. The patient was never hypotensive during surgery, nor in heart failure. Exposure to chemical toxins is unlikely. Blood transfusion reactions are immediate, rather than delayed, and hemoglobinuria is usually manifest. Viral hepatitis produces a different pathologic picture and necrosis of liver cells is not limited to one zone.

SUMMARY

A patient is presented who died of liver failure postoperatively after having been anesthetized with trifluoroethyl vinyl ether and halothane. At autopsy, the liver showed midzonal necrosis. This particular type of liver injury has not previously been associated with anesthetic hypersensitivity.

NONPROPRIETARY AND TRADE NAMES OF DRUGS

Halothane — *Fluothane*
Methoxyflurane — *Penthrane*
Trifluoroethyl Vinyl Ether — *Fluoromar*

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Nothing short of total destruction of the physiological-biochemical-anatomical body complex awaits some confirmed bibulants—but which ones?!

On the Evils of Drink

Some observations—clinical and personal

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Ever since man found out that some of life's apples have worms, he has sought escape from the sordid in drink. Every age and nation has its favorite oblivion juice. Whether it is vintage champagne, bilge beer or okolehao, it is all metabolized as plain old booze; it attacks the human organism with a remarkable lack of concern over its own particular ethnic origin or genealogy.

CONSUMPTION of alcohol is a social obligation. To refuse a drink places one in a unique category. In some strata of life, refusal to belt one down with the boys is a crass affront, a sin to be expunged with verbal or physical punishment. In more sophisticated saloons, polite refusal to imbibe identifies one as some kind of health nut.

The white-collar alcoholics, with their Sen-Sen breath, razor haircuts, and sunset eyeballs, regard the abstainer as a superior-acting creep who is putting them down. Then, we have the hard-nosed, pistol-packin' combat commander who says, "I don't trust a man who won't take a drink." This much publicized rubric represents the philosophy of a lump. Western civilization has evolved a mythology about the social virtues of alcohol.

Man pickles his tissues with fermented distillate derived from every plant from apples to palmettos, including cacti and dandelions. Joy juice comes from every green sprout that ever dared pop out of the ground; hardly a vegetable substance has escaped the pummel-rot-drink-the-squeezin's sequence.

In recent years, medical literature has been saturated with documents of physiologic abuse incurred by habitually dousing the cells in ethanol, involving many more drinkers than the staggering drunk, the plastered killer behind the wheel and the Saturday-night wino with the bulging belly and gushing varices.

Let us explore the broad spectrum of havoc in the human organism that can be produced by alcohol. You won't find it in many of the anti-alcohol books. Temperance advocates tend to be preachy, but objective physiologic and clinical data speak louder than any sermon on discipline and morality.

HEPATIC DANGERS

Almost by tradition, alcohol has been associated with liver disease. Laennec's cirrhosis has been the hallmark of a lifetime of alcoholism and episodic malnutrition. Yet, we have all been impressed by the occasional heavy drinker who escapes liver damage. This has been attributed to adequate supplemental non-alcoholic calorie ingestion. However, normal liver function is also seen in chronic imbibers who demonstrate florid evidence of malnutrition. A constitutional enzyme difference has been proposed as an explanation. Some individuals "metabolize better" than others?

In recent years, we have come to realize that the alcoholic is father to a strange family of liver disorders. These include fatty liver, hepatitis characterized by Mallory's hyaline bodies in liver cells, a severe hepatitis that is related to the former, and the conventional micronodular cirrhosis of Laennec.

The traditional teaching that malnutrition is a prerequisite for alcoholic liver damage has been challenged. A series of experiments conducted on rats (subsequently verified in human volunteers) indicated that isocaloric replacement of fat by ethanol caused hepatic steatosis; isocaloric replacement of carbohydrate by fat did not. Ethanol had a greater capacity to generate a fatty liver than fat itself; lack of carbohydrate was not responsible for this effect. C. S. Lieber and E. Rubin¹ state, "The development of fatty liver reflected neither prior alcoholism nor a long standing nutritional deficit, since comparable results were obtained in normal, non-alcoholic volunteers, some of whom showed fat accumulation in the liver after periods of alcohol ingestion as short as two days. In this regard, it is interesting that hepatic fat accumulation was produced by amounts of alcohol that did not cause inebriation and are commonly consumed by so-called social drinkers." Thus, it would seem that amount and duration of alcohol intake, rather than malnutrition, may be the determining factors in alcoholic liver injury.

Other studies suggest that alcohol can induce fatty liver in human volunteers despite concomitant administration of massive supplementation with protein and choline. The pathophysiology and chemistry of alcohol in the liver is well described by Lieber and Rubin.¹

The debate regarding progression of a fatty liver to cirrhosis remains unresolved. Although the devolution of alcoholic fatty liver to cirrhosis has been documented by Popper, et al,² there is no evidence that alcohol-induced hepatic steatosis leads directly to cirrhosis. Alcoholic fatty liver is a benign disorder in most patients. However, in a significant number, it merges into a more serious problem, associated with fever, leucocytosis, abdominal pain, jaundice, and high rate of mortality. This is "alcoholic hepatitis" or "alcoholic hyaline bodies of Mallory" disease. The alcoholic fatty liver is not characterized by inflammation; it can be distinguished from alcoholic hepatitis by light microscopy. Under the scrutiny of the electron microscope, the ultra-structural features in hepatocytes suggest that alcoholic fatty liver may be the precursor of alcoholic hepatitis. The latter disorder is characterized by extensive necrosis and inflammation. This may terminate in fibrosis and cirrhosis. A chain of events leading from fatty liver through alcoholic hepatitis to cirrhosis is circumstantial but highly suggestive.

As stated earlier, determinants for the development of cirrhosis are not clear. Lieber and Rubin¹

suggest that "In addition to the dose and duration of alcohol consumption, factors such as the congeners of alcoholic beverages, the pattern of alcohol intake, genetic and constitutional predisposition and possibly malnutrition could modify the ultimate response of the liver to ethanol." It takes approximately ten to fifteen years of conscientious alcohol abuse to acquire a micronodular cirrhosis. Perhaps investigations simply have not been carried out long enough.

Still another peculiar twist to this pathophysiologic sequence is the occurrence of portal hypertension *without* cirrhosis.³ In this situation, deposition of collagen in the central portion of the liver lobule seems to be more significant in the development of postsinusoidal vascular resistance (and portal hypertension) than the more conventional nodular regeneration with distortion of sinusoids. This has been called "acute sclerosing hyaline necrosis."

Apparently, "alcoholic hyaline disease" of Mallory is the early acute stage of this disorder. There is a possibility that a subclinical form may exist that can culminate in insidious portal hypertension. Some patients fail to demonstrate the hepatic tenderness, fever, jaundice, leucocytosis, and abdominal pain that is suffered by the majority of alcoholic hepatitis patients, yet they turn up with portal hypertension.

The occurrence of other gastrointestinal problems related to heavy drinking—acute gastritis or "rum belly," acute pancreatitis, exacerbation of peptic ulcer is well known.

ACUTE HYPOGLYCEMIA

A related phenomenon is acute hypoglycemia occurring after alcohol ingestion. There have been approximately 150 cases reported in the world literature (suggesting that thousands more have escaped documentation). Some of these patients are chronic alcoholics; others exhibit hypoglycemia after their first drink. In general, the patients follow a pattern: prolonged fasting or poor nutrition, followed by a moderate-to-heavy drinking bout. They arrive in the emergency room with severe hypoglycemia. Symptoms range from stupor to coma; most victims exhibit a vast range of neurologic findings (most curious is trismus, which has been observed quite frequently). Response to intravenous glucose is dramatic.

The diabetic patient (receiving insulin or oral hypoglycemic drugs), who misses a few meals, drinks heavily, and then becomes severely hypo-

glycemic (through both mechanisms), could be involved in a lethal situation. When most of these patients have been studied carefully, some defect in carbohydrate metabolism has been demonstrated. Thus, diabetic patients receiving hypoglycemic agents should be reminded at frequent intervals about the hazards of spree drinking and starvation.

MUSCLE DISORDERS

The chronic malnourished alcoholic exhibits a familiar, pathetic configuration. He is debilitated and wasted in a characteristic way. Until recently, these stigmata had not been studied in any scientific fashion. In 1967 Perkoff and associates⁴ described several syndromes characterized by clinical and biochemical muscular abnormalities associated with chronic alcoholism.

They found significant biochemical changes in alcoholic patients who did *not* have muscle complaints. The principal biochemical aberrations were elevation of the creatine phosphokinase serum levels (CPK) and a diminished ability to elevate blood lactic acid in response to ischemic exercise. Other alcoholic patients manifested similar chemical aberrations and also experienced an acute syndrome, characterized by muscle tenderness and cramps, which was reversible. A particularly severe version of this disorder is associated with muscle pain and edema, gross myoglobinuria and elevated serum enzymes. On occasion, acute renal failure related to myoglobinuria has followed heavy drinking episodes.

Acute myopathy may progress to chronic myopathy, as demonstrated by two patients in the Perkoff series. There were 10 other patients with chronic alcoholic myopathy who shared many clinical abnormalities, but seemed divisible into two groups. All had muscle weakness and atrophy, but lower extremity and pelvic girdle muscles were the principal site of attack in most patients. Muscle tenderness was a prominent symptom in some. Symptoms progressed rapidly, leading to serious disability and ultimate long term hospitalization. In the other chronic group, tenderness was *not* a major feature, and stability rather than progression characterized the clinical course. These patients seemed to have a less aggressive form of the disease.

The acute myopathic syndrome is detected by serial determination of CPK, occasional myoglobinuria, and muscle cramps. Chronic myopathy should be anticipated. Proximal muscle weakness with atrophy associated with tenderness

should raise one's index of suspicion. Muscle biopsies are helpful but not diagnostic. Abstinence from alcohol was associated with improvement in virtually every instance.

CARDIAC PATHOLOGY

In 1959, Evans⁵ described, in a paper with a Dickensian flavor, various abnormalities in electrocardiograms of alcoholics. He spoke of "cloven," "dimpled" and "spinous" T-waves that reflected repolarization disturbances encountered in alcoholic cardiomyopathy. Priest *et al*⁶ in 1966 found Evansian T-waves in 20 of 37 "psychiatric inpatients with alcoholism." The abnormal electrocardiograms correlated well with body weight ("never in our obese patients") and height (but apparently not too well with alcohol ingestion?).

Alcoholic cardiomyopathy is a distinct entity. The prototype is the relatively young, often well-nourished, chronic alcoholic who usually consumes vast amounts of beer. One day, he develops dyspnea, fatigue, and weakness. Soon thereafter he accumulates edema that progresses to anasarca, and he lands in the emergency room with flagrant combined heart failure. Rales are surprisingly infrequent.

Some of these patients suffer severe lactic acidosis with shock. The liver will be large and tender, and pleural effusion may complicate ascites and peripheral edema. The electrocardiogram will show sinus tachycardia, Evansian T-waves, and possibly some intraventricular conduction defects. The laboratory analyses will contribute normal or increased hematocrit, low or normal blood urea nitrogen, hypomagnesemia, and low serum iron. Hepatic enzymes will be moderately disturbed, and there may be respiratory or metabolic alkalosis.

At this point, if the patient can be convinced to avoid alcohol, the symptoms will disappear. But if he persists (as most do), he will confirm the prognosis of fatality within a period of two or three years.

At postmortem, the heart is enlarged, dilated, and flabby. All organs are congested and pulmonary infarction is common. Most of the microscopic damage is found in subendocardial and smaller coronary branches. The liver will show severe, chronic passive congestion, or effects of alcohol, *per se*. Ultramicroscopic examination of the myocardium reveals remarkable fragmentation of the myofibrils and a severe derangement of other subcellular elements.

Back in 1963, some enterprising *braumeisters* in Quebec, Denver, Omaha, and Minneapolis (that

we know about) were adding a dash of cobalt to the hops to insure more photogenic foaming suds. In Omaha, 26 of 60 beer drinkers died with a fulminating cardiomyopathy that seemed distinct from the usual alcoholic involvement.

This was the second such disaster in recorded medical history. In 1900, some arsenic was inadvertently dumped into the beer vats at Manchester, England, and 6,000 people got sick; 70 died, apparently from cardiac involvement.⁷

HEMATOLOGIC DISORDERS

The bone marrow has not escaped the sweep of the alcoholic scythe. In 26 alcoholic men, examination of marrow aspirates revealed megaloblastic changes in five, and megaloblastoid morphology in three; the others were normal. However, abnormal vacuolization—similar to that observed in patients receiving chloramphenicol, in Di Guglielmo's syndrome (erythremic myelosis), in premature infants on phenylalanine restriction, and in patients with experimental riboflavin deficiency—was found in pronormoblasts and basophilic normoblasts. Cells of the myelogenous series were involved similarly but not as severely.

Vacuolization was a transient phenomenon, decreasing and disappearing within three to 12 days of abstinence from alcohol. The correlation with acute ingestion was significant; 13 of 14 patients had been drinking excessively on the day of admission. Those with megaloblastic and megaloblastoid normoblasts were found to be heavy wine and whiskey drinkers; the others drank beer. The pertinence of this observation is questionable since the numbers were small.

Alcohol-induced thrombocytopenia has been noted by many authors. In most of these patients, there was no associated marrow abnormality, although some had reduced megakaryocytes. Hypersplenism was not identified. It would seem, at least in some patients, that alcohol has a direct toxic effect on bone marrow—independent of any nutritional deficiency.

Other observers have noted that alcoholic patients tend to respond to acute bacterial infections without much leucocyte enthusiasm. It is almost as though alcohol interferes with mobilization of leucocytes from their peripheral alert stations, when the call goes out to respond to infection.

A most curious syndrome reported by Rubler and Fleischer⁸ indicts alcohol as the “. . . precipitating agent in the production of these catastrophic events (pulmonary thrombosis and infarction in

the presence of cardiomyopathy) in the susceptible person with sickle cell trait. . . .” It was suggested that excessive alcohol overloaded the oxidative capacity of the pyruvate-lactate cycle, ultimately resulting in tissue acidosis. This, in turn, facilitated sickling and thrombus formation within the pulmonary vascular bed. When this occurred in the presence of alcoholic cardiomyopathy, the outcome was fatal. Patients with sickle cell trait should be cautioned about the hazards of tipping at 33,000 feet.

NEUROLOGIC DISEASES

The neurologists have a field day with chronic alcoholics. Kalant has said, “. . . small doses of alcohol may improve the performance of certain highly complex intellectual tasks.” This may be related to depression of the ascending reticular structure, which apparently releases intellectual inhibition.

My own experience with small doses (a highly personal and variable factor) is that one is more apt to “think” he can best any man in the bar (intellectually, physically, or sexually), but when it comes to performance, usually it is a poor show. With larger doses one gets frankly inebriated; we all know what that is. Drunk individuals are rather inclined to joust with misplaced curbstones, aggressive windshields, and free wheeling night sticks, resulting in cracked craniums, sojourns in drunk tanks, and death from neglected subdural and epidural hematomas, with or without associated aspiration pneumonia.

Other equally devastating central nervous system effects related to marathon alcohol consumption (some inextricably laced with malnutrition) are Wernicke's syndrome (abetted by thiamine deficiency), degeneration of the corpus callosum (another Marchiafava syndrome), frontal lobe atrophy, pellagra (CNS and cutaneous), cerebellar atrophy (apparently a true alcoholic toxicity manifestation), pseudotabes, and agonizing, unrelenting, refractory, peripheral polyneuropathies.

Not a very appetizing menu to go with the wine, but the CNS *piece de resistance* is the alcohol withdrawal syndrome. This is a fearful, often fatal disorder. The incredible hyperkinesia—hallucinoses of florid delirium tremens—exceeds the wildest fantasies of Dante or Poe. It is perhaps the most fearful phenomenon in clinical medicine, ranking with rabies and tetanus in clinical horror. I have seen it surface in alcoholics who were still consuming significant quantities. It is more related

to a decrease in the blood level of ethanol than abstinence. We have superior means of management these days, but it is still nightmare alley for all concerned. And even in the best of hands, ten to fifteen per cent still die.

SUMMARY

Thus, we have scanned the spectrum. No one can say that alcohol is not generous in dispensing its infamous favors; its anatomic range is ubiquitous, no tissue escapes. Alexander⁹ comments: "That only a small fraction of chronic alcoholics develop disease of the liver, central nervous system, skeletal muscle or heart (add blood, lung, stomach, pancreas, peripheral nerves) suggests

that individual variations must play an important role. For example, it seems likely that the metabolic handling of alcohol by these organs is influenced by genetic determinants, nutritional factors such as the relative composition of protein and fat in the diet, mineral and vitamin intake and the disturbance of acid-base balance, influencing circulation, cardiac output and coronary blood flow." Certainly, this must be true. But, as yet, we have not been clever enough to sort out those who will be injured by alcohol and those who will not. The hard facts of physiologic ravage must be revealed to the potential consumer—especially the young. In our drug-oriented culture, the need to inform the public has never been more urgent.

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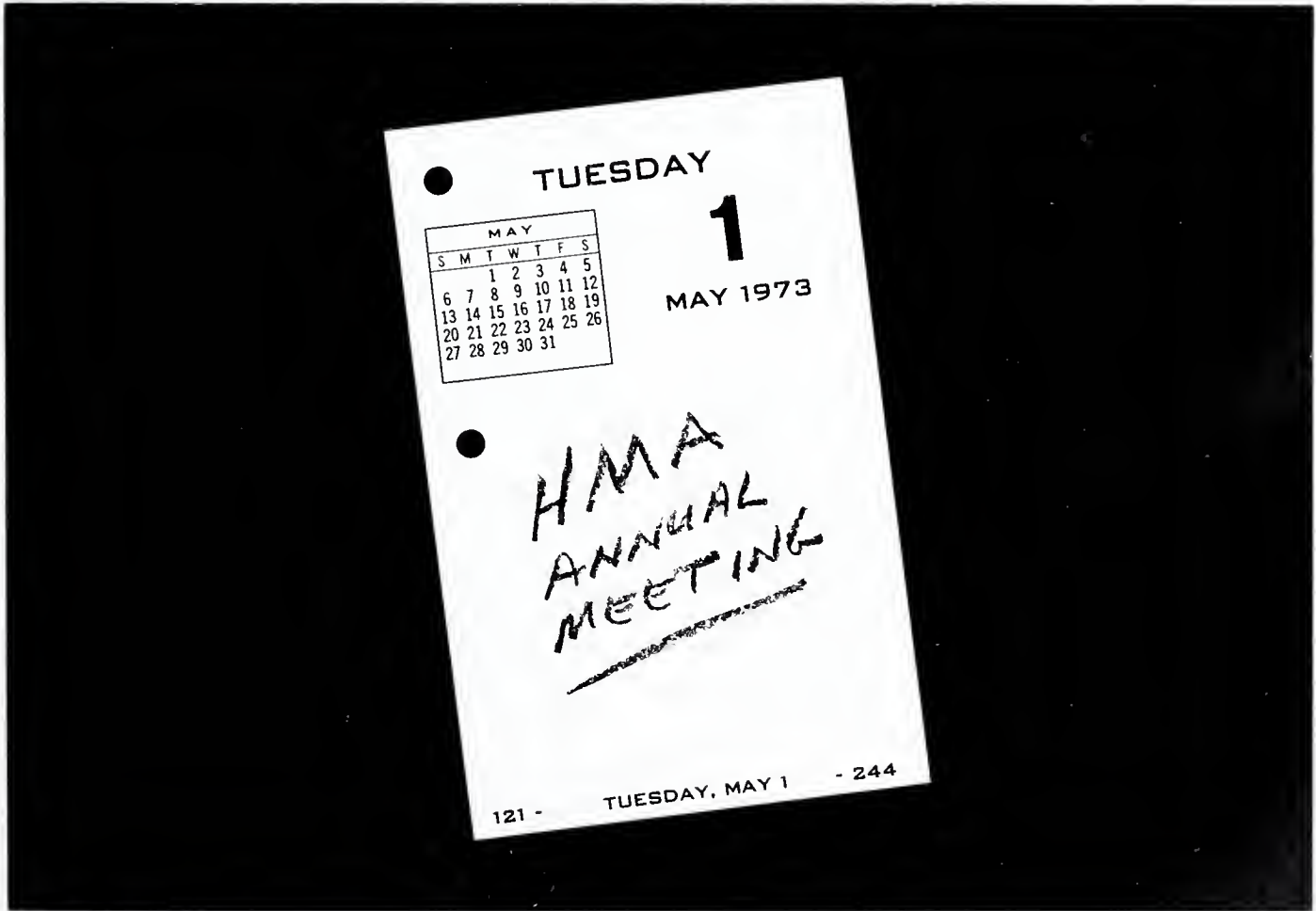
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Case Report

*A seemingly normal spleen may rupture without known trauma.
Preoperative angiography may permit a diagnosis.*

Occult Spontaneous Rupture of the Spleen: A Diagnostic Problem

BAL RAJ MEHTA, M.D., Honolulu

The diagnosis of rupture of spleen depends almost wholly upon the history of trauma and the typical signs of shock, pain, tenderness in the left upper quadrant, absent or hypoactive bowel sounds and evidence of moderate to severe injury to the area of the left upper quadrant. The spontaneous rupture of a normal spleen is extremely rare,¹ and still rarer is the syndrome of occult rupture of the spleen. Spontaneous and occult rupture of the spleen in same case has been reported recently by Stewart.² The following case presents an example of spontaneous rupture of a normal spleen presenting in an unusual way, resembling the syndrome of occult rupture first described by Lorimer³ in 1964.

CASE HISTORY

THIS PATIENT, a 19-year-old girl, woke up on the morning of admission, on April 11, 1969, with severe generalized abdominal pain and pain in the left shoulder. She denied any trauma or unusual effort prior to this episode. Her last menstrual period was on March 7, 1969.

Physical examination revealed a slender girl, whose blood pressure (100/50), temperature, respiration, and pulse rate (80) were all normal. There was generalized tenderness over the lower abdomen with rebound tenderness over the lower half of the abdomen. No localized tenderness or

rigidity were noted. However, there was generalized guarding of the abdominal muscles. Bowel sounds were diminished. Pelvic examination revealed a purulent cervical discharge. The uterus, cervix, and both adnexa were tender. The uterus was of normal size.

Hemoglobin was 11.2 gm/100 ml; hematocrit was 35%. White blood cell count was 14,040 but the differential count did not show any shift to the left. Urinalysis revealed a few pus cells and bacteria. Plain film of the abdomen showed an elevated left diaphragm with a pelvic density, the lower half of the left psoas shadow was poorly seen.

A diagnosis of acute pelvic inflammatory disease was made and she was started on intravenous fluids and penicillin. She was not given anything by mouth. Two days later she felt better and was started on clear liquids. Her menstrual period, somewhat delayed, began at this time. On the third day her abdomen was found to be soft, though bowel sounds were still hypoactive. She felt considerably better. She was started on a soft diet and allowed up.

On the fourth day of her hospitalization she was doing well; however, that evening she looked very pale. She complained of mild left subcostal and lumbar pain, and some pain in her left shoulder. Her blood pressure was slightly lower than on admission and her pulse was somewhat rapid. There was an impression of a mass in the left subcostal area. Hemoglobin was 4.8 gm and hematocrit 14%. Her white blood count was

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10,400, with a normal differential. Culdocentesis yielded 100 ml of blood. A preoperative diagnosis of an ectopic pregnancy was made and she was explored. At laparotomy large amounts of old blood clots were found. The pelvic viscera were normal. Large blood clots surrounded the spleen, which was torn along its lateral surface and hilum. Splenectomy was performed.

Pathological examination revealed a spleen weighing 120 gm, and completely normal both microscopically and macroscopically except for the tears. The patient made an uneventful recovery and was discharged on the tenth day. The hematological workup was completely normal.

DISCUSSION

The patient apparently had a rupture of her spleen prior to admission, with a hematoma which became confined. She presented with an unusual problem of acute abdomen with most of the signs pointing to the lower abdomen as the origin of her complaints. There was gradual leaking of blood from this confined hematoma over the next few days, hence the lack of typical signs of shock.

The spontaneous rupture of a normal spleen is disputed by many. There have been reports of minor trauma such as associated with sexual intercourse, vomiting, coughing, etc., leading to rupture of a normal spleen. It is almost impossible to rule out such minor trauma in this case, as in other similar cases.

The incidence of spontaneous rupture of the spleen is quite low. Pratt⁴ reported an incidence of 2% from a review of 254 cases of splenectomies. However, Orloff and Peskin⁵ in their collective review of 71 reported cases found 28 cases which they thought acceptable as examples of spontaneous rupture of a normal spleen. They established the following four criteria which must be satisfied before this diagnosis is accepted.

1. *No history of trauma or unusual effort.* Questioning before and intensive questioning after surgery failed to reveal any such history.
2. *No evidence of disease of the spleen.* The pathological examination of the spleen failed to reveal any evidence of disease. The hematological work-up similarly failed to reveal any abnormality. The patient was in good health before the onset of her symptoms and has remained well since.

3. *No evidence of prior splenic adhesions.* There were no such adhesions noted by either the surgeon or the pathologist.
4. *The spleen should be normal on both macroscopic and histological examination.* Except for the tears and blood clots, the spleen was found to be entirely normal.

The syndrome of occult rupture of the spleen was first described by Lorimer,³ who reported seven cases. Drapnas⁶ and Foley⁷ added four and five cases respectively, and further defined the condition as one making up less than 1% of all splenic ruptures.

They described occult rupture of the spleen as an insidious entity often manifested by vague symptoms which may contribute to an erroneous diagnosis, such as angina, myocardial infarction, pulmonary embolism, pleural effusion, intraperitoneal malignancy, or blood dyscrasia. Occult rupture usually implies traumatic rupture in a situation where the trauma is insignificant or entirely overlooked, thus leading to the impression that this is a spontaneous process. This case exemplifies all these problems.

Recently, however, Drapnas⁶ *et al* have drawn attention to a pathogenic angiographic pattern, on selective celiac or splenic angiography of this syndrome, which helped them to make a correct preoperative diagnosis in four cases. There is a characteristic vascular pattern, with vascular defects on the lateral surface of the spleen, extending to the diaphragm and lateral abdominal wall, compressing and distorting the remaining hilar vessels.

SUMMARY

The diagnosis of traumatic rupture of the spleen with its typical signs and symptoms does not present any special problems. However, in a small number of patients there is a sudden spontaneous rupture of a normal spleen which should be recognized.

In the syndrome of occult rupture of the spleen the clinical picture is so vague and confusing that it usually leads to an incorrect diagnosis. A case of a 19-year-old girl is presented which illustrates some of these problems. She apparently had a spontaneous rupture of a normal spleen presenting with vague lower abdominal symptoms which led to a diagnosis of a gynecological condition.

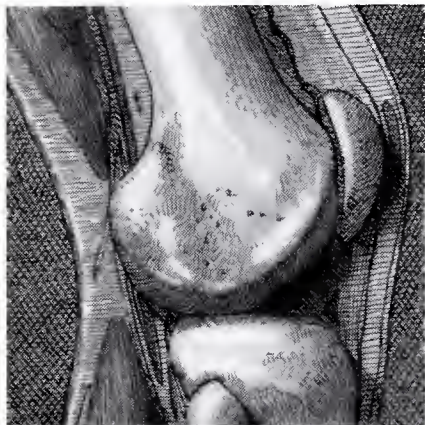
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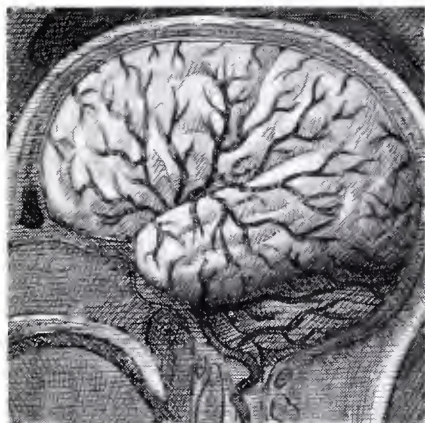
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The President's Page

New Direction for EMCRO—Phase II

Funding the present EMCRO Study terminates May 1973, and because RMP funding is uncertain, the EMCRO staff approached the National Center HSR&D independently for possible further funding.

The National Center has expressed the feeling that inclusion of outcome measures and continuation of input by other concerned organizations was most desirable, and felt that a more autonomous executive board would be more productive. However, it was felt by the Council and national sources that maintaining control by clinicians was not only desirable but mandatory.

Hence, the new proposal does allow the executive board to function autonomously in consultation with the HMA, and it will continue to include representatives from other concerned organizations such as the Hospital Association, Nurses Association, CHP, HMSA, and Aetna, but it will be appointed annually by the HMA and be composed of 51% physicians, most of whom will be involved in EMCRO and all of whom will be HMA members. The objectives of EMCRO will be expanded to include an evaluation of outcome measures, as well as the effects of a few key socio-economic factors on the disease process, in an effort to evaluate all major factors affecting the course of various conditions.

The Council overwhelmingly felt that the EMCRO Project was very worthwhile and should be maintained. Thus, heroic efforts have been made by the staff and Council in this direction. Alex Anderson will be unable to continue as project director, but will stay on as a part-time consultant. It is hoped a physician of national repute in the field of medical audit and education will be available to become the director.

EMCRO-Hawaii is one of the nation's finest efforts in the field of medical audit and education and it is hoped that it can continue to develop as a reliable means of reflecting the medical care process for the physicians, hospitals, and the community involved.

William E. Leonard MD

Welcome to Bob Moser's Ruminations!

"Ruminations," by Contributing Editor Robert H. Moser, M.D., of Wailuku, replaces in this issue our five-year-old column, "Slants and Angles," written by William Philip Jones, M.D. Dr. Jones asked to be relieved of the chore, and happily Dr. Moser was willing to take it on.

Dr. Moser is an internist of such national distinction that we literally cannot afford the space to fully spell it out. Born in 1923, married and with two grown sons, he has spent most of his career—since graduation from Georgetown with an MD in 1948 and his residencies in medicine, cardiology, and hematology—in Army service. He retired as a Colonel in 1969, having been chief of medicine in three Army medical centers, the last of them Walter Reed. Since then he has practiced with the Maui Medical Group in Wailuku, and has been Chief of Medicine, and now Chief of Staff, of Maui Memorial Hospital.

Since 1966, Dr. Moser has written a lively, humorous, and instructive column, "Of Tomes and Tangents," for *Medical Opinion* (formerly "& Review"), of which he is a contributing editor. For 6 years he has been Book Review Editor of the *Archives of Internal Medicine*. For almost 4 years he has been a consultant to the National Library of Medicine. He was medical consultant to the Gemini manned space flight project, and a member of its Medical Evaluation Team from 1964 till its completion, and also to the Apollo Project which followed it, until 1969. He is also Clinical Professor of Medicine at both the University of Hawaii and the University of Washington medical schools.

We warmly welcome our new columnist, and we hereby advise all readers that this is an offering they won't want to miss. Turn to "Ruminations" and see why!

H.L.A.

EMCRO--A Change in Direction

There have been changes between the HMA/Payne study and EMCRO in methodology used to assess quality of care.

1. The Payne study utilized a comprehensive statement of criteria for optimum management of patients including histories, physical examinations, laboratory, and management items. EMCRO has reduced the number of items reviewed for each disease and has placed greater emphasis on decision points in patient management. The specific items selected for review by the criteria panels change from time to time at the discretion of the panel.
2. The criteria approach of the Payne study implied 100% compliance with each criterion item for the optimum care of all patients. EMCRO has altered this approach and requests that each participating hospital or group of physicians establish its own performance goals (estimates of what percent of pa-

tients should receive a particular service).

3. EMCRO is no longer weighting criteria on an arbitrary scale of 0.5 to 3, and PPI's (Physician Performance Indexes) are no longer calculated.
4. Each participating physician receives (1) a summary of the services he provided for his patient or patients included in the study, (2) a summary of the services provided to comparable patients by his peers, ie, members of his hospital department or physicians with comparable specialty training, and (3) an all-Hawaii level of performance.
5. EMCRO does not routinely produce comparative performances for different practice settings, ie, solo practice, multiple-specialty groups, and prepaid groups.

ALEXANDER S. ANDERSON, M.D.
EMCRO Project Director

Termination of Parental Rights*

Most parents love their children. They secure and protect each child's right to emotional security, good physical care, education for life and, most of all, the right to be with his natural parents and siblings.

Unfortunately, today, an increasing number of parents do not show such an interest in their children and many children need protection from grossly neglectful or abusive parents.

Freeing these children from such parents so that they may develop new, constructive parental relationships with adoptive parents seems logical, simple, and a perfect solution. It is not always so.

"Termination of parental rights erases all rights, not only the rights of parents, but also the rights

of their children. Because it is easier to place a child than it is to pour into his home the social services which could stabilize family life, far more children are separated than should be."*

Vincent De Francis, M.D.,† has recently written an excellent pamphlet in which he presents his exploration of juvenile court laws as they pertain to termination of parental rights and the legal complications surrounding the procedures. It's thought-provoking.

WILLIAM F. MOORE, M.D.

* "Termination of Parental Rights—Balancing the Equities" American Humane Association, Box 1266, Denver, Colorado 80201. Price 35¢.

† Director, Children's Division, The American Humane Association, Denver, Colorado.

Who Should Write Prescriptions?

State laws in the U.S.A. generally permit duly licensed physicians, and no-one else, to write prescriptions for "prescription drugs."

Obviously some drugs—aspirin, caffeine in aqueous solution, milk of magnesia, chicken soup—can be dispensed by anyone and need no control.

But does possession of an MD degree really qualify one to prescribe any drug? Of course not. Very few surgeons or dermatologists, if any, would be competent to prescribe, for example, digitalis, or propranolol; not very many of them even know what propranolol is, or what it's used for, or even how to spell it. Similarly, few internists would know how to prescribe 5-fluorouracil properly for topical use. They wouldn't attempt to do it; they know their limitations.

How about the other side of the coin? What about the man who doesn't have an MD degree? Is he, for lack of it, incompetent to prescribe? Nonsense! Of course he's not. Any practicing clinical psychologist, despite his possession of "only" a PhD, knows *more* than he would need to know in order to be allowed, safely, to prescribe the drugs that fall within his area of expertise. He is far *more* competent to prescribe sedatives and tranquilizers, for example, than the majority

of nonpsychiatrist doctors of medicine. It is as absurd to restrict his privilege to prescribe these as it is to *not* restrict the privilege of a dermatologist or neurologist to prescribe digitalis. If the latter isn't necessary, and it seems it isn't, than neither is the former!

As to the possession of a license to practice in the state in which the prescription is to be filled, this is a piece of legislative arrogance, which the medical profession ought not to tolerate. If my patient is in Arizona or North Dakota and wants to refill my prescription for tetracycline for his acne, should that state government require him to get it rewritten by a locally licensed physician? This is an outrageous make-work practice with no practical or moral justification at all, and results in unnecessary medical expenses to the patient.

If a Ugandan is visiting here and wants what his witch doctor at home regularly gives him for his migraine, he ought to be allowed to get it on the witch doctor's say-so. A man's choice of his doctor, be it allopath, osteopath, naturopath, or what not, is his own business, and he should be allowed to live as dangerously as he likes.

Let our legislature take note, and offer us a remedy.
H.L.A.

AMA News in Brief



Most Americans are satisfied with the nation's health care system and do not see current problems as a crisis warranting "radical overhaul of existing institutions." They also place "greater confidence and trust in organizations of doctors such as the AMA than in any other potential contributor to the development of new federal health legislation." Those findings are based on surveys reported in a new book, *U.S. Health Care: What's Wrong and What's Right*, by Stephen Strickland, Universe Books, N.Y. The need for "some basic changes" in the health care system was expressed by 61% of the public and by 66% of the physicians surveyed. But, Strickland notes, the public does not want fundamental values violated.

Medical leaders gathered in Chicago February 16-18 for a national leadership conference to examine priority issues in American medicine. The theme of the conference, called by AMA's Board of Trustees, was "Meeting the Challenges of Leadership in 1973." Presidents of state and county medical associations and national specialty societies and their executives were invited.

The AMA is expanding its program of legislative activities to meet changing needs and priorities. It created a position in the Washington Office for a legislative attorney who will devote attention to the interests of national medical specialty societies. It also appointed an ad hoc committee on federal-state legislation to guide the AMA toward better correlation of legislative proposals, particularly those of broad significance that are emerging in state legislatures. The committee comprises seven state and county medical society executives.

The AMA has launched its "Project USA" program to recruit physicians for short-term service in medically deprived rural and inner-city areas. The program, conducted in cooperation with the National Health Service Corps, is the domestic counterpart of the AMA's Volunteer Physicians for Vietnam program under which more than 750 physicians have provided care to Vietnamese civilians since 1965. Chief requirements are a desire to serve where needed and the ability to practice general medicine. Most assignments are in rural areas. Write Project USA, AMA, for further information.

The AMA again urged that hospital certification and recertification requirements under Medicare be rescinded because they serve no useful purpose. It made the recommendation in a letter to HEW's Health Insurance Benefits Advisory Council, now reviewing the effectiveness of these requirements. Eliminating certification and recertification requirements would be a "step toward a desirable simplification of reimbursement mechanisms" and also would relieve physicians of "the burden of unnecessary documentation," the AMA said.

Higher fees are justified when physicians attain board certification, the Price Commission ruled. It advised a newly certified urologist that he could establish a new base fee structure at the level of average base fees charged by other board-certified urologists in his area. Board certification is a "highly significant professional attainment which substantially increases the physician's professional status and the value of his services," the commission said.

The AMA announced its schedule of practice management workshops for resident physicians who soon will be entering private practice. It will present four "Establishing Yourself in Practice" seminars at AMA Headquarters in early 1973. The dates are Jan. 18-19, Feb. 27-28, March 2-3 and April 6-7. There is a \$25 registration fee, refundable to residents who are AMA members. Send inquiries to Dept. of Practice Management, AMA.

The AMA has compiled a summary of pertinent changes in Medicare, Medicaid and Maternal and Child Health laws resulting from enactment of the 1972 Social Security Amendments. Many are of significant interest to physicians. Write Legislative Dept., AMA, for a copy.

New from the AMA: *Distribution of Physicians in the U.S.-1971*, \$5.75. Send prepaid orders to the Order Dept., AMA. 60-minute audio cassette presenting highlights of the AMA's 32nd Annual Congress on Occupational Health, \$3 for AMA members and \$5 for others. Write Order Dept., AMA. Revised edition of a *Guide for Medical Evaluation of Candidates for School Sports*. Write Dept. of Health Education, AMA, for a complimentary copy.

Hawaii Academy of Family Physicians



. . . OUR 25TH YEAR

World War II ended 27 years ago, first in Europe, then in the Pacific. In 1947, just two years later, the American Academy of General Practice was founded on the principle that continued membership must depend on continued learning. The Academy's reputation was to stand on the premise that if its members failed to indicate continued exposure to postgraduate education to the extent of 150 hours of formal instruction each three years, then such members who failed could jolly well get out. (The Hawaii chapter was chartered in 1950.)

Many generalists have joined the Academy and have later dropped out, locally as well as nationally. Some could not fulfill the study requirements—perhaps because of distance away from course centers—perhaps because of the exigencies of a too busy practice. This is not to say that non-membership is synonymous with non-learning; because every physician who practices is forever learning as he “practices” to become more perfect. Each case treated is a learning experience for him, to the benefit of the next case, or should be. However, the Academy believes that something more than experience alone is needed, to elevate and maintain high standards of medical care, and that is: Formal retraining. Growth of membership—to nearly 33,000 physicians—is perhaps testimonial enough. The American Academy of Family Physicians, as it is now named, is the second largest organization of physicians, the first being the American Medical Association.

Many other professional medical organizations have followed suit as regards instituting educational requirements for continued membership. These include the specialties of internal medicine and of surgery, for example. Some state medical associations have adopted such requirements: Oregon, for example. The State of Arizona has even gone so far, as a state, to require evidence on the part of physicians of postgraduate re-education for the purposes of relicensure. The doctor's livelihood is at stake. The AMA itself offers an incentive of late—a certification—as a promotional scheme.

The Academy of Family Physicians is obviously finding itself running to keep ahead of the

pack. It is trying to modernize the requirements for membership.

As an incentive, it offers Fellowship status, accorded only at specified convocations with suitable cap-and-gown ceremonies, to those members who have faithfully kept up to the extent of a total of 600 hours of approved credit courses—or the equivalent of 12 years of active membership. More than 4,000 physician members had the degree of Fellow bestowed upon them at the New York City ceremonies in September 1972, as a first contingent. Among them were a half-dozen from Hawaii.

The AAFP was instrumental in bringing about the American Board of Family Practice, a specialty board under the auspices of the AMA. Any physician doing family practice may aspire to be a diplomate—not just members of AAFP. The major requirement is to pass a lengthy written examination. It is a step forward, because the board will probably soon require re-examination and recertification every six years or so.

Core Content Review—a joint project of the Connecticut and Ohio Academies of Family Practice—is an example of another trend in emphasis on relearning. This is a correspondence course—or rather a monthly examination by 100 questions—in which the participant is examined, and then may teach himself through the answers that are sent to him later, answers that are explanatory and give references. He thus gets to recognize his weaknesses and is encouraged to strengthen them.

The annual meeting and scientific session of the AAFP provides tremendous opportunities for all registrants to submit themselves to all kinds of new learning methods and experiences. The interest in this field and the efforts to aid on the part of the big drug houses must be seen to be appreciated. Nearly 5,000 physicians appeared at the September 1972 meeting in New York.

Just as our own René Paulo practises for hours in order to become more perfect on his piano, we physicians must practice on our patients in the sense of forever learning. It is the patient, ultimately, who benefits from our continuous learning and experimenting. The AAFP is proud to have been the originator and to be still the leader in formalizing this professional attribute.

J. I. FREDERICK REPPUN, M.D.

Hawaii Heart Association



DIGITALIS

DELIGHT, DILEMMA, DOGMA, DANGER

The delight of clinical improvement with digitalis administration when indicated and correctly employed is a rewarding experience for patient and physician alike. Use of a digitalis glycoside (digoxin, digitoxin, digitalis leaf, etc.) should probably be avoided except for management of congestive heart failure or supraventricular tachyarrhythmias.

Well established average dosage schedules for initial and maintenance digitalization do not provide an adequate basis for the regulation of therapy, since a third or more experience toxic effects or fail to realize expected benefits. Although the latter can be important in patients with suboptimal progress, life-threatening consequences of drug overdosage have had a major impact on the present day use of digitalis. One illustration is reflected by some recommendations that in the absence of severely impaired heart function administration of a daily maintenance dose will safely achieve digitalization within a reasonable time.

This concept requires individualization, despite readily available published guides to administration of various preparations, not to be summarized in this brief report. Research has disclosed factors influencing individual drug requirements, which should be known to physicians using this drug. An imposing list may be grouped for practical purposes to include those factors which increase requirements, such as malabsorption, hyperthyroidism, and hyperkalemia. Decreased requirements increase the risk of toxicity with "average" doses.

Increased sensitivity exists in older patients with advanced heart disease, acute myocardial infarction, hypoxic states, and hypothyroidism. Electrolyte imbalance with hypokalemia and alkalosis predispose to toxic effects of digitalis. Factors favoring potassium loss, including potent diuretics, require frequent reevaluation. Digoxin is excreted largely by the kidneys and daily maintenance doses may require readjustment in patients with renal impairment, since requirements are inversely related to renal function. Digitoxin, metabolized

largely by the liver, may thus be preferable.

Any physician employing digitalis can expect to encounter situations creating a dilemma in management. Digitalis toxicity may cause refractory heart failure. Accordingly, a patient presenting without reliable history, who has presumably responded poorly to therapy, including digitalis, raises the problem of too much or too little drug. This question is encountered frequently in such patients and the situation may be compounded if rhythm abnormalities exist, since they may be due either to the heart disease itself or reflect drug toxicity. Resolution of the matter requires careful evaluation of factors governing drug sensitivity, referred to above; but it may be necessary to administer small incremental doses of a rapidly acting preparation (digoxin) and watch for early drug-induced arrhythmias with continuous electrocardiographic monitoring or, conversely, observe for manifestations of clinical improvement. The cautious approach described is in contrast to previously held views that one should push to toxicity in order to reach digitalization and then retreat.

Despite older dogma, the pulse rate itself is not an indicator of digitalization with sinus rhythm, nor in atrial fibrillation unless the initial ventricular response was rapid. ECG manifestations do not indicate digitalis effect, short of toxicity. Older concepts also held that desired drug response required full digitalization; however, effects are now known to be dose-related. Since the therapeutic ratio is relatively narrow, recent reports urge a conservative approach to digitalization. The latter term itself is enigmatic since there is no reliable indicator that characterizes the optimal level of digitalis for a given individual. When accurate methods for digitalis measurement were developed, including the radio-immunoassay method available in Honolulu, it was hoped that results might provide an identifiable range of optimal digitalization or at least define toxic levels. Experience has shown that values may be misleading and must be interpreted in relation to individual drug sensitivity. Conversely, blood levels

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One of the more intriguing euphemisms of government/legal "newspeak" is *environmental impact*. Apparently one is obliged to submit an "environmental impact statement" when proposing to perpetrate some new outrage against the land. Most often these are voluminous tracts written in a formidable engineer-technical patois. They are based on data gathered by the proponents of the project, replete with appropriate emollients and blandishments—assuring everyone that the bird sanctuary will be translocated (tell it to the birds!); or the four ribbons of highway concrete will be routed so as to minimally disturb historical sites and to preserve the beauty of the land (but it just happens to follow almost a straight path); or that the 20 story highrise will be in consonance with the general architectural scheme of the area (but none of the existing structures rises above two stories). The few EIS's I have attempted to read are masterpieces of semantic obfuscation.

I am not about to debate the practical needs of our ever-expanding, hyperkinetic, sea-locked citizenry—which threatens momentarily to spill over into the sea), versus the relentless rape of the land. But I must confess some uneasiness; I cannot recall the last time I saw any concrete ripped up and replaced with pandanus and palms.

But it seems that the land is beginning to lash back. For example, the super highways of Los Angeles, long known for their lack of charity to hapless tourists (who are apt to get whisked along to San Diego if they wander into a wrong lane), have struck back, and hard. It seems that minuscule amounts of carbon monoxide in the atmosphere can cause significant grief to angina pectoris sufferers. In the study by Aranow et al (*American Journal of Medicine* 77:669 [Nov.] 1972) "Ten patients with angina were studied . . . after being driven for 90 minutes during heavy morning freeway traffic, and two hours after their return." Cardiac and pulmonary function tests were repeated on a later morning, with the patients breathing compressed, purified air during their charge down the freeway. The investigators measured—under both conditions—arterial carboxy-hemoglobin, exercise performance, systolic blood pressure, heart rate, pulmonary ventilatory function, and electrocardiograms. They found that

"exposure to heavy freeway traffic increased carboxy-hemoglobin levels, causing angina develop sooner after less cardiac work." There was objective deterioration of cardiac function tests.

The implications of this study extend to the grass roots of investigation into the etiology and pathogenesis of coronary artery disease. Is it the carbon monoxide inhaled by heavy cigarette smokers that does the dirty work? And how about the freeway habitue who smokes with the windows closed and the air conditioner on? (And how about if he drinks 5+ cups of coffee per day?) It would seem a fruitful area for further investigation.

* * *

Many years ago (1959) I became interested in drug-induced diseases. Rapidly this bloomed into an obsessive medical hobby which consumed a great portion of my medical reading time. In the wake of thalidomide, ripples of alarm spread throughout the medical community. AMA and FDA mounted aggressive campaigns designed to acquire meaningful epidemiologic data on adverse drug reactions. It was a forlorn effort (see "Obituary of an Idea," *JAMA* June 28, 1971).

But the problem has not gone away. In scanning two recent issues of a popular internal medicine journal, I encountered this incredible array of iatrogenic diseases: (1) SMON (Subacute myelo-optico-neuropathy) due to *clioquinol*, a "commonly prescribed remedy for intestinal ailments" in Japan and Australia . . . (2) a review of cardiomypopathy related to cobalt chloride insinuated into beer (for its foam-provoking, esthetic effects) by enterprising braumeisters in Quebec, Belgium, Omaha, and Minneapolis . . . (3) hematemesis related to intraarterial injection of reserpine for Raynaud's phenomenon (etiology unknown) . . . (4) RBC "rigidity" related to oral contraceptive agents. These stiff (non-compliant) red cells had difficulty traversing the microcirculation. (This may represent a new clue in the quest for an explanation of the increased incidence of thromboembolic disease seen in AOA recipients) . . . (5) methimazole (Tapazole) given in doses of 120 mgm per day to 32 patients caused various forms of dermatitis in six, agranuloc-

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Book Reviews

WINFRED Y. LEE, M.D.

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Handbook of Pharmacology, 5th Ed.

By Windsor C. Cutting, M.D., 659 pp., \$9.95, Appleton-Century-Crofts, 1972.

THIS HANDBOOK, written by the late Dr. Windsor Cutting, has over the years been a popular volume among medical students and busy practitioners alike. Written in an outline form, it has been particularly useful for a quick review of the salient features of individual drugs and classes of drugs. The new edition follows the format used in the past and in addition has a new tabular summary at the end of each chapter which allows a rapid comparison of the different drugs discussed in the section. The handbook is particularly valuable because of its up-to-date listing of new drugs; many new entries which have not found their way into other pharmacology texts are readily found in the handbook. In part, this stems from the author's association with the United States Adopted Name Council, an organization which he chaired from its inception until his untimely passing last May.

BERT K. B. LUM, M.D.

Human Psyche and Psychoanalysis— The Development of Three Models of Psychoanalytic Theory

By Benjamin Wolstein, Ph.D., 162 pp., \$8.00, Charles C. Thomas, Springfield, Illinois, 1971.

THERE IS A great deal of highly condensed material in these 162 pages; and as the subtitle indicates, it traces the development of three models of psychoanalytic therapy: biological model, sociological, and psychological. The first has to do with so-called Id therapy, the second concerns itself with ego-interpersonal therapy, and the third lays emphasis on the therapy of shared experience.

Psychoanalytic theory and technique have kept pace with the changing sociocultural scene to a much greater extent than is commonly recognized, and this book attempts with some success to trace that evolution and development. Most medical students and psychiatric residents will find the text slow-going, but the effort is worthwhile.

WILLIAM J. T. CODY, M.D.

Approach to the Medical Care of the Sick Newborn

By Sophie H. Pierog, M.D., and Angelo Ferrara, M.D., 292 pp., C. V. Mosby Co., 1972.

IN THIS BOOK, details of the extensive problem of the approach to medical care for the newborn infant are discussed.

The text is limited because of the heterogenous character, complexity and rapid changes of present day neonatology.

However, the general purpose of providing a guide to pediatric home officers in training, to pediatricians, and to family practitioners involved in infant care is achieved by the authors. The book is recommended to everyone interested in neonatology.

RAYMOND J. C. WONG, M.D.

A Decade of Progress—The United States Army Medical Department, 1959-1969

Prepared and published under the direction of Lieutenant General Hal B. Jennings, Jr., The Surgeon General, United States Army, Editor-in-Chief, Colonel William S. Mullins, MSC, USA, Edited by Rose C. Engelman, Ph.D., Office of the Surgeon General, Department of the Army, Washington, D.C., 214 pp., \$2.25, Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

THIS MONOGRAPH summarizes the varied activities of the United States Army Medical Department during the years 1959 to 1969. It discusses the professional care and associated operations, modernization of facilities and equipment and the use, education, and training of personnel.

Administration, management, and supply of the entire department and the handling of numerous problems in war and peace are also included topics.

Biochemical Profiling in Diagnostic Medicine

By Joseph A. Preston, M.D., and David B. Troxel, M.D., 51 pp., \$2.50, Technicon Instruments Corporation, Tarrytown, N.Y., 1971.

THIS SHORT MONOGRAPH on the SMA-12 is a handy guide to all students and graduates of medicine. It gives, in graphic form, the typical or classical levels of the 12 blood chemicals tested in the normal and abnormal. Patterns found in those with hepatic disease, or with calcium-phosphorus disorders, or with cardiovascular-pulmonary-renal disease, or hematologic disorders, are available for reference.

A Guide to Psychiatric Books, 3d Ed.

By Karl Menninger, M.D., 238 pp., \$11.50, Grune and Stratton, 1972.

THIS GUIDE is an excellent asset for those who have any interest in mental illness.

Remedial Arterial Disease

By Roy H. Clauss, M.D., and Walter Redish, 194 pp., \$7.50, Grune and Stratton, Inc., 1972.

THIS CONCISE and informative book is essentially a treatise on reconstructive arterial surgery, somewhat lacking in detail in most sections.

Chapter 4, entitled "Restoration of Primary Circulation," is actually the meat of the monograph. It is 114 pages long and therefore comprises more than half of this 187-page book. Although easily readable, this chapter could benefit from a change in format. Division into shorter chapters might make the subject matter more readily digestible to those with only ordinary interest in vascular surgery.

Diagrams depicting techniques are adequate and the figures showing arteriograms are of excellent quality.

Detailed discussions on many areas such as the use of blood flow detectors, sympathectomies, and surgical approaches are lacking. Because of the limited numbers of patients in the authors' personal series, it is difficult to comment on the section entitled "results." In general, though, a perusal of this book will benefit not only the beginner but also the expert vascular surgeon.

WALTER Y. M. CHANG, M.D.

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County Society News

HAWAII MEDICAL JOURNAL

Honolulu

The November 14, 1972 meeting was called to order by President Winfred Lee. Approximately 100 members were present.

Minutes of the October 3 membership meeting were approved as read by Dr. Moore.

Dr. Lee welcomed and introduced to the membership new members: Drs. Efren Baria, Paul Barry, Lee Falk, Dennis Maehara, Robert Nemechek, Deborah Putnam, David Sakuda, Donald Sroat and Keijiro Yazawa.

Dr. Lee reminded the membership that following the program portion of the meeting there were two major items on the business agenda, namely, the Nominating Committee's report and proposed Bylaws revisions.

Topic for the evening's program was the "Medical School—Third and Fourth Years." Discussants were Dr. Winfred Lee; Dr. Terence Rogers, Dean, University of Hawaii Medical School; Sister Maureen, Administrator, St. Francis Hospital; Henry Thompson, Administrator, Queen's Medical Center, and Masa Tasaka, Administrator, Kuakini Hospital. Dr. Herbert Chinn introduced the speakers and served as moderator during the question and answer session following the presentation.

The chair called attention to an incident where a medical certificate for illness was given to a teacher who was seen walking in a recent picket line. The membership was reminded that sick slip forms should be issued only to those persons who have been under a physician's care and have been released.

Dr. Frissell presented the Nominating Committee's slate of nominations for 1973, copies of which had been circulated in the mail. Additional nominations from the floor were made as follows: Nominated to the Nominating Committee were Dr. Richard Omura and Dr. Frederick Warshauer.

Proposed revisions to the Bylaws were presented to the membership. Dr. Lee opened the floor for discussion as he read through each amendment. The proposed revisions were approved with amendments.

There being no further business, the meeting was adjourned at 11:00 P.M.

The December 5, 1972 meeting was called to order by President Winfred Lee. Approximately 150 members and guests were present.

The minutes of the November 14 meeting were approved as read by Dr. William Moore.

Dr. Lee introduced to the membership new members: Drs. Wojciech J. Jasinski, Calvin M. Miura, Robert L. Simmons, and Winston Ueno.

Dr. Lee announced the rules for election were as follows: The polls would close at 8:12 instead of 8:00; allowing a full half hour for voting. The Secretary would cast the vote of the Society for the following unopposed offices: President-Elect, Secretary, and Board of Censors. Dr. Lee announced that tellers for the election would be Dr. Andrew Morgan, head teller; Drs. Michael Okihiro, Alan Pavel and Henry Yokoyama.

A portion of the Bylaws revisions relative to the Peer Review objectives that was deferred at the last meeting was brought up for discussion. It was felt that Section 2 on the objectives was unnecessary as it was purely edi-

torial, could be misunderstood, and further, removal of this section would not alter the context of the Peer Review Committee. A motion to remove Section 2 of the Peer Review Committee from the Bylaws was seconded and passed.

Mr. Rice brought out that at the last membership meeting, the membership voted to amend the makeup of the Medical Practice Committee by making the member of the clergy and Bar Association a voting member of the committee. He stated that this change in the wording could put the Society in jeopardy with the immunity laws of the State and he would recommend that the membership act at this meeting to amend the Bylaws to restore the language back to its original form. In view of this information received from Mr. Rice, a motion to revert Section 1 of the Medical Practice Committee back to its original wording was seconded and passed.

The Chair announced that the Society's dues would remain at \$90 for 1973.

The annual reports of the Society for 1973 were presented to the membership for approval. Following some discussion of several of the reports and the Society's 1973 budget a motion to accept the reports as circulated was seconded and passed.

Mrs. Frederick Shepard, President of the Woman's Auxiliary, presented a brief summary of the Auxiliary's activities for 1972. She thanked the membership for the opportunity and privilege of attending its Board of Governors meetings. She then introduced newly installed president, Mrs. Robert C. Lee, Jr., who in turn introduced the rest of the Auxiliary officers for 1973.

On behalf of the Society a lei and plaque were presented to Dr. Lee by Dr. Dang in recognition of his leadership as president for 1972. In his outgoing message to the membership, Dr. Lee stressed personal involvement and self assessment.

The results of the election were announced by Dr. Morgan as follows:

President-Elect—William F. Moore, Jr.

Secretary—Albert C. K. Chun-Hoon

Treasurer—Douglas B. Bell, II

Board of Governors—Ann Catts, Michael M. Okihiro, Henry T. Oyama, Alan Pavel and Patrick J. Walsh
Alternate Board of Governors—Richard K. B. Ho, Gordon Liu, Theodore K. L. Tseu and Henry H. L. Yim

Board of Censors—Winfred Y. Lee

Medical Practice Committee—Felix J. Lafferty, Robert I. Oyata and Benjamin C. K. Tom

Nominating Committee—Reginald C. S. Ho and Frederick B. Warshauer

The Chair announced that a list of the elected delegates and alternates would be published at a later date.

Dr. O. D. Pinkerton presided over the installation of the officers. Following the installation, Dr. Lee presented the gavel to Dr. William Dang. There being no new business to come before the membership, Dr. Dang declared the meeting adjourned.

Maui

The November 21, 1972 meeting was held in the charming home of our Society president and wife, Dr.

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New Members

HAWAII MEDICAL JOURNAL



Hilario A. Aquilizan, M.D.

99 South Market Street
Wailuku, Maui 96793

**GENERAL PRACTICE—
GENERAL SURGERY**

University of Santo Tomas,
College of Medicine—1953
Internship—Pawtucket Memorial
Hospital, R.I.—1959-1960
G.P. Residency—Pawtucket Memorial
Hospital—1960-1961
G.S. Residency—Middlesex General
Hospital, New Brunswick, New Jersey
and Montefiore Hospital and Medical
Center—1961-1964



Louise Geise, M.D.

638 Liholiho Street
Wailuku, Maui 96793

ANESTHESIA

Temple University School of
Medicine—1937
Internship—Englewood, New Jersey—
1937-1938
Residency—Los Angeles County
General Hospital—1941-1942
Queen's Medical Center—1940-1941
Kapiolani Hospital—1940-1941



Wojciech J. Jasinski, M.D.

888 South King Street
Honolulu, Hawaii 96813

ANESTHESIA

Medical Academy of Gdansk—1963
Internship—St. Boniface Hospital,
Winnipeg Man, Canada—1966-1967
Residency—St. Boniface Hospital,
Winnipeg Man., Canada—1967-1968
Swedish Hospital, Seattle, Wash.—
1968-1969
St. Boniface Hospital—1969
Winnipeg General Hospital—1970
St. Boniface Hospital—1970
Deer Lodge Hospital, Winnipeg—1971

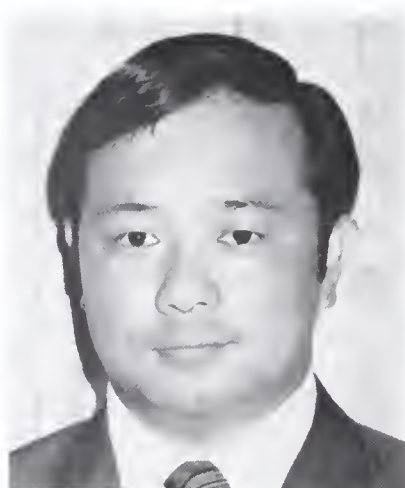


John Mebane, M.D.

37 Kekaulike Street
Hilo, Hawaii 96720

PSYCHIATRY AND NEUROLOGY

University of Pennsylvania—1947
Internship—Walter Reed General
Hospital—1947-1948
Residency—Walter Reed General
Hospital—1948-1950
Cincinnati General Hospital—
1951-1952



Calvin M. Miura, M.D.

1126 S. King Street
Honolulu, Hawaii 96814

OPHTHALMOLOGY

Tulane School of Medicine—1963
Internship—Tripler General Hospital
—1963-1964
Residency—Letterman General
Hospital, San Francisco—1966-1969
U.S. Army Hospital, Camp Zama,
Japan—1969-1972



Rienzi G. Remitio, M.D.

3420 Kuhio Highway
Lihue, Kauai 96766

ANESTHESIOLOGY

University of the East—1961
Internship—Ohio Valley Hospital—
1962-1963
Residency—Franklin Square Hospital
—1963-1964
Southern Baptist Hospital—1964-1965
Youngstown Hospital Association
—1968-1970

Hawaii Medical Association

HAWAII MEDICAL JOURNAL

COUNCIL MEETING

October 13, 1972—5:00 P.M.

Mabel Smyth Conference Room

CALL TO ORDER

The meeting was called to order by President William E. Iaconetti. Present were: Drs. Herbert Y. H. Chinn, Thomas P. Frissell, R. Varian Sloan, William W. L. Dang, George Goto, Peter Kim, Ed B. Helms, Sakae Uehara, Winfred Y. Lee, DeWitt H. Smith, E. R. Ballard, Albert C. K. Chun-Hoon, Fred I. Gilbert, Douglas Bell II, Masato Hasegawa, Rowlin Lichter, Elisabeth Anderson and Alex Anderson plus Mr. V. Thomas Rice.

SPECIAL DISCUSSION

Hospital Affiliation Agreements: Dr. Chinn reported on the progress of the various hospitals in their affiliation agreements with the School of Medicine, University of Hawaii. It was noted that the medical staffs will continue to elect the chief of staff with final approval by the School of Medicine.

New Methods of Health Care Delivery: Dr. H. H. Chun, chairman of the HMA Health Manpower Committee, was invited to address the Council on new methods of health care delivery. He reviewed national as well as local activities and definitions of the various types of allied health manpower. His committee has included representatives from the Schools of Nursing and Medicine, Comprehensive Health Planning, Tripler Hospital, and the Hawaii Nurses Association in an effort to keep abreast of all matters relating to medical and allied health manpower. He recommended that the Association call on Dr. Elisabeth Anderson as a resource person. He feels the role of the HMA committee should be in an advisory capacity, that is, not one which would generate new programs.

MINUTES

The minutes of the September 22, 1972, meeting were approved as circulated.

SECRETARY'S REPORT

The secretary's report was approved as circulated.

TREASURER'S REPORT

The Council requested a breakdown of the travel account as well as a comparison of the 1971 and 1972 profit and loss statement. Both items were circulated to the Council for their perusal.

REPORTS OF THE COMMISSIONS AND SPECIAL COMMITTEES

A. Medical Education and Peer Review: The Peer Review Committee has met twice and is establishing guidelines which can be used by all committees under the Peer Review System. They are also considering a reporting mechanism which will permit the development of an educational program based on actual experience. Dr. Lee noted that the HCMS Medical Practice Committee has been selected to participate in a national study on peer review being carried out by Byrd Engineering for HEW.

B. Internal Affairs: The Convention Committee has received confirmation from two speakers for the annual meeting. The Bylaws Committee has met weekly in preparation for the Constitutional Convention on November 4 and 5.

C. Legislation: A report on planned legislative action was presented. A proposal for a medical malpractice commission was discussed and it was felt that another commission is not needed at this time since the review system of the county medical societies is already extremely effective.

D. Commission on Medical Services: The Workmen's Compensation Committee is preparing legislation which will enable fees for medical services to be adjusted automatically. Consideration is also being given to another fee survey to determine the current factors in use. It is hoped the factors most frequently used might be provided by HMSA.

E. Commission on Public Health: Dr. Sakamaki reported on the activities of the Environmental Health Committee. He noted that the committee voted to support the Mass Transit Bill, which was subsequently defeated in Congress, and asked that HMA support this stand and urge Hawaii's congressmen to again support such a measure if introduced. Dr. Sakamaki noted that he is representing the Association on the cane burning committee of the Department of Health.

Further action on the Mass Transit Bill was deferred until the officers have an opportunity to study a summary of the bill.

F. Commission on Interprofessional and Public Affairs: Dr. Bell reported that the brochure "In Case of Serious Illness" has been printed and will be distributed by the Medicine and Religion Committee. Career's Day will be held on October 18 at the HIC and more volunteers are needed. The Hawaii Newspaper Agency and the HMA will sponsor four public forums with HNA providing the publicity and handling tickets and HMA providing the panelists. The TV-Radio Committee has applied for funds from several Trusts and have spoken to private advertising agencies in an attempt to continue HMA Hotline.

G. Health Service and Care: As reported by Dr. Chun, the Health Manpower Committee has been very active. Dr. Gilbert feels the committee has reached the point where they will soon be able to develop a position paper on health manpower.

H. Bureau of Research and Planning: The Bureau plans to embark on two new programs: (1) A study of medical libraries in the State and (2) Methods of attracting new physicians to the Association. The Council concurred with these recommendations and asked that the reports be presented to the Council when completed.

Dr. Hasegawa was asked to comment on the newly formed RMP Hypertension Committee. He reported that he recently learned that funds could become available for a hypertension project and he felt that Hawaii's RMP should be prepared. Federal funds were diverted from NIH to the National Heart and Lung Institute and Health Services and Mental Health Administration (which includes RMPs) when Congress asked for a more practical way of bringing a hypertension program to the American people other than through education and research. The program may eventually provide treatment and payment of physician's services. Thus, a study committee chaired by Dr. Bernard Yim has been asked to look into the present state of the heart, the population at risk, how those who cannot afford treatment can be provided services, etc. The HMA Community Health Care Committee has been asked to keep the Council informed on the progress of the hypertension project.

I. EMCRO: A number of requests have been received for information on the HMA/Payne Study. The officers discussed this matter at length and recommend that the

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Life in These Parts

Gary Guber, director of the Hawaii-Japan Cancer Study dictated his findings on a possible appendicitis case as follows: "The patient's abdomen was examined by percussion and then palpation." To Gary's consternation, the neatly transcribed report read: "The patient's abdomen was examined by percussion and then, *pau patient*."

In another transcribed report Gary's arthritis patient received "aspirin, Butazolidin, and when there was no response, finally injections of God."

Kuakini radiologist **Ed Childs** dictated "a post bulbar ulcer" which was transcribed as "a post vulvar oldster."

We met our staunch environmentalist **Leigh Sakamaki** coming out of McDonald's, a quickie lunch tucked under his arm and gazing fondly at the sparkling blue sky with its idling white clouds. . . . Reading his thoughts we thanked him for his anti-pollution efforts. . . . Leigh smiled and remarked, "Shucks, I was only praying to the heavens. . . . I'm turning Buddhist, you know."

Herb Takaki who practices full time and plays golf several times a week like a 40-year-old recently turned 72. For the occasion, Herb had planned a Las Vegas trip to fatten his coffer, but his golfing compadre, **Dick Omura**, and his golfing cohorts of the Mid Pac Thurs. Club had other plans. A few days before Herb's scheduled departure, his usually reliable tour agent called up and apologized that he was booked solid and could not take Herb. Disappointed, Herb begrudgingly participated in the Club's bimonthly black and white tournament, winning 3 points from his opponent. At the post tournament dinner at Nuuanu Onsen, Dick Omura presented Herb with a \$350 golf gift certificate, enough for a complete set of clubs and a \$100 Liberty House certificate for Gladys, his wife. Herb had a happy, frozen smile and glistening tears the whole evening long. . . . Social chairman **Ken Ozaki** told the following anecdote: "You know how it is for most of us when we get home late at night. . . . We coast into the garage, remove our shoes and tip toe into the bedroom hoping not to wake the wife, but she is invariably awake and we are in the dog house. . . . Well, not so with Herb. . . . He guns the car motor when he gets home late, slams the door shut, tramps loudly into the house, climbs into bed, and slaps Gladys on the back. 'How about it, darling?' he demands and Gladys pretends to be fast asleep." Throughout the evening, **Ed Emura** and **Mike Okihiro** drew from their repertoire of favorite songs and we chorused late into the Nuuanu night. As for Herb, never have we seen anyone look so happy, even for a guy who did not get to Vegas. . . .

Good natured, garrulous **Harold Civin**, former Queen's pathologist, had taught us all the pathology we ever forgot. Harold was here on vacation in early January for two weeks, staying at the **Grant Stemmerman's**. We found him to be the same humorous wit, and a giant of a teacher, who warned, "If you ever get a chance to go away, don't!" We learned that Dorothy, his wife, was fine and had asked about us. Then, we recalled those lonely months back in 1956 when Dorothy contracted polio and Harold kept a silent vigil outside her Liho I room, for once in his life, unable to say anything witty or knowledgeable, and oh, how thin Dorothy's veins were when we had to restart her IV's. . . .

Our patient was a borderline Wernicke Korsakoff's from a holiday binge and a prolonged febrile course from a resistant staph of his arm. While febrile, he

seemed oriented enough, but when he improved, he greeted us one morning with unusual euphoria. We asked suspiciously, "Who am I?" "You are **Dr. Nishigaya**." We were flattered, but decided his Korsakoff's was now full blown. . . .

We are proud to say that physicians are a hardy breed, perhaps more inured to adversity than others by our training and work. We met **Kaname Yoshimura** looking spry and cheerful and wearing a lauhala papale instead of the stockinette cap he had on earlier to cover the scar from his left parietal craniotomy for a silent subdural. Kaname related how he first realized something was wrong when he started to scrape the left side of his car when driving. He didn't recall any particular trauma. Another physician who several years back had a similar silent subdural was **Wally Kawaoka**. . . . Perhaps we physicians should watch out for our otherwise thick skulls.

Another physician who has rebounded from his illness is **Goenzo Yamashita** who never lost his winning smile and friendly demeanor. Goenzo since his discharge from Rehab Center has acquired a goodly tan from swimming daily at Kaimana and attends the Monday noon conferences at Children's. . . .

Ike Nadamoto, as team physician, accompanied the Iolani football team to the mainland. During the trip he came down with the London flu and had not eaten for 2 days. As he disembarked from the plane at Honolulu Airport, he fainted and fell forward, sustaining a severe periorbital ecchymosis and deep abrasions of his forehead. As we sat around in the Makai III nurses station we asked, "Who hit you anyway, Wini?" **Norman Nakamura** joked, "Too much champagne on the plane?" **Dick Omura** added, "He looked around at a pretty stewardess and tripped." Ike smiled gratefully, blackeye and all, at the sympathetic gibes. . . .

AMA-ERF Dinner Benefit (April 7)

Those who have been attending the annual AMA-ERF benefit already know, but for those who have not attended a recent benefit put on by the Honolulu County Medical Society Auxiliary may not realize what they are missing. The benefit is an occasion for fun, gaiety, excellent entertainment and a chance to contribute dollars painlessly. . . . Last year, we sorely missed **Ed Kagihara** and his troupe, but this year they will be back, and their performance alone is worth the \$15.00 a person for dinner and donation. Co-chairing the affair are **Berna Yim** and **Mamie Kimata** while **Dolli Watt** and **Sandra Shim** will handle arts and crafts; **Shirley Kam** and **Honey Pavel** baked goods; **Mae Kim** and **Carolyn Chee**, decorations; **Alice Tucker** and **Mae Kagihara**, pupus; and **Diane Fujikami**, raffles and donations. The schedule is as follows:

- 6-8 pm (no-host cocktails and spectacular sale)
- 8 pm (Americana gourmet dinner)
- 9 pm (Americana Musical Special with Ed Kagihara and troupe and the Iolani Stage Band)

Berna Yim called one evening and we answered the phone just as we had started to brush our teeth. Now, we've answered phone calls in various stages of undress straight from the shower, but we discovered that the discomfort from the shivering and the wet footprints on the floor are nothing compared to the agony of a mouthful of toothpaste and saliva slowly accumulating therefrom. Berna was rambling on and on enthusiastically

about the "red, white and blue motif" of the occasion (the American Spirit) and how we could make table reservations beginning in March with **Jane Uemura** and **Violet Takushi**. . . . She probably wondered about the strange grunts emitted by our mouthful of saliva admired with tooth paste. Finally in sheer desperation, we manage to blurt, "Excuse us a minute," rushed pell mell to the bathroom to rid our mouthful of goo. . . . We agree with Berna that those who miss the AMA-ERF show are really missing an extravaganza deluxe. . . . We do hope **Ed**, **Jerome Tucker**, **Bill Hindle**, and **Bob Lee** do those pantomime renditions of the Spike Jones' Aloha Oe, Cocktails for Two and others. . . .

Tom Thorson's Corner

A dumb blonde comes up to our table and asks, "Quick, give me a riddle so I can impress my date." "Ask him, 'What's a buccaneer?'" "Yeah, what's a buccaneer?" "It's a helluva high price for corn." The blonde goes back happily to her table and asks her boy friend, "Honey, what's a pirate?" "I give up, what's a pirate?" "It's a high price for corn, but I don't know why."

The psychiatrist explained to his patient: "You have strong dominant homosexual propensities." Replied the patient: "You know, you're kinda cute yourself."

Dialogue between a teenage daughter and physician father: "Daddy, please explain about the birds and bees and you might as well start with the second trimester."

A professor in family counselling was asked what sort of woman one should marry. He advised, "Never get married to an educated woman. Ignorant but enthusiastic cooperation is far superior to intellectual acquiescence."

Conference Notes

During a Friday morning Queen's medical conference, **Max Levin**, rheumatologist, described a specialist as "One who knows more and more about less and less." Max discussed how to differentiate dissecting popliteal cysts from acute thrombophlebitis. He injects intraarticular iodinated media and gets a characteristic gamma scan. For treatment, he removes synovial fluid and if the fluid is clear, injects hydrocortisone acetate. . . .

At the same conference, ophthalmologist **Dennis Maehara** delved on diabetic retinopathy. We learned that 50% of all diabetics develop some retinopathy and even as high as 90% develop retinopathy after 18 years. Of 25% of adult onset diabetics with simple retinopathy, 50% develop malignant retinopathy in 10 years. The treatment is clofibrate and early photocoagulation.

Visiting Physicians

The visiting evangelist of surgery in December was **Erle Peacock, Jr.**, from Arizona Medical Center. Erle, a youthful, tall, movie leading man type with a Billy Graham style of crusading evangelism kept audiences spell bound with his streaming dialogue in Southern accent. **Charlie Judd** later kidded, "I expected him to call us forward any minute to accept Christ." **Ed Ichiriu** commented, "I thought I was at the wrong meeting . . . an evangelical meeting."

Herein a few Peacock gems:

Definition of a zealot: "A person who has lost sight of his objective but redoubles his effort every day."

Re, inguinal hernias: "There are two kinds of hernias essentially, viz congenital (which is anatomical) and acquired (2° to acquired disease). . . . The connotation of direct and indirect hernias is meaningless. . . . We have to understand what the acquired disease is in acquired hernia. . . . We have to understand where the metabolic defect is and age is not a factor."

Re, small joint stiffness: "Joint stiffness is caused by the conversion of free water in the joint to bound water. . . . To prevent interphalangeal stiffness, the key is general stress and manipulation. . . . The worst combination is edema with immobilization."

Re, Dupuytren's contractures: "Pinch the skin over the dorsum of the joint. If it doesn't stay up more than 5 minutes, then the results will be poor with surgery. . . . Avoid fat men with fat hands. . . . Also avoid women with Dupuytren's. . . ."

Re, surgical society meetings: "Mostly, they tell war stories. . . . Sort of an old man's supper club. . . ."

Medical Anecdotes

"Born Free" "Was your father a doctor?" (From Aku's program)

Post funeral conversation: "Say, Ed looked great. . . . Good suntan and healthy looking." "He should. He dropped dead while doing his daily 2 miles." (Contributed by **Richard Dennis**)

Sportsmen

We asked **Bess Chang** for a tentative schedule for the forthcoming HMA Meeting dates esp the sporting events and learned that the meetings will be held May 1st to the 4th with Sportsman's Nite on the 5th (Saturday) at the Natsunoya Teahouse. Co-chairman **Manuel Abundo** and **Joe Nishimoto** (aided by **Al Chun Hoon**) are trying to get Mid Pac CC for the May 4th (Friday) golf tournament. **Andy Morgan**, general sports chairman, hopes to hold his annual fishing derby on April 29th (Sunday). Interpolating from these dates, we presume that **Ted Tseu** will hold his Skin Diving Tournament on April 28th and 29th while **Bill Davis'** Bow & Arrow Hunt will be held on the weekend of the 6th. Courageous **Leabert Fernandez** took over the reins of the Tennis tournament and plans to hold the tournament beginning March 11th with a consolation bracket for those eliminated. The deadline for the event will be February 28th. The entry fee was reduced to \$5.00 and will cover the cost of trophies for the first two places in each bracket and a can of tennis balls for each participant. Participants will make arrangements for their own tennis courts and arrange to play off their own schedules. This eliminates the cost of tennis court guest fees which has been a source of complaint.

In summary:

HMA Meeting—May 1 (Tues.) to May 4 (Fri.)

Sportsman's Nite—May 5 (Sat.) at Natsunoya

Golf Tournament—May 4 (Probably Mid Pac CC)

Bow & Arrow Hunting—April 6 weekend

Skin Diving Tournament—April 28 weekend

Tennis Tournament—Starts March 11

The team match was apparently going poorly for orthoped **Garth Morimoto** and partner as **Glenn Kokame** and **R. K. Uyeno** were stretching a hot streak by the 9th hole one Saturday afternoon at Mid Pac. Then like manna from heaven, came a reprieve: A message at the clubhouse to call Kuakini ER. A telephone call confirmed that a patient had a dislocated thumb. Sensing an urgent call to duty, Garth unhesitatingly declared all bets cancelled and left for the emergency. Glenn made some disparaging remarks about dislocated thumbs and pathologist **Tom Kobara** in our foursome joked, "If he had been winning, he would have called the resident to reduce it." Fellow pathologist **Frank Fukunaga** wished, "If I could only be called out for a frozen when my game is going sour." Then we recalled how Tom had been called out at the 14th hole on Thursday, but how he was soon back after a fast telephone consultation. Tom explained that the surgeon had good judgment so he was able to make a decision over the phone, whereupon neurologist **Mike Okihiro** joked about special videophone equipment which would make possible frozen section diagnoses via phone. And to his chagrin, the club assistant came out to get Mike four holes later with an emergency call. When Mike didn't get back, we guessed that his patient in myasthenia crisis had gone sour. . . . Small wonder physicians have such bad days on the golf course. . . .

continued page 52

study be released as well as the HMA press release, the editorial by Dr. Winfred Lee, and the report of the Ad Hoc Committee who evaluated the study. All of these reports would be made available to those organizations who could benefit by our research experience. The information would be for their own use and not for purposes of comparison or publicity.

ACTION:

It was voted to disseminate material from the HMA/Payne Study on the Quality of Care, accompanied by the HMA's critique, to recognized professional groups at the discretion of the officers.

Dr. Alex Anderson reported on the direction of the EMCRO project and asked permission to release copies of the original EMCRO grant request to organizations who are interested in applying for funds to develop EMCROs.

EMCRO Position Statement: A draft of a position statement on the direction of the EMCRO Project was discussed at length. A revision will be presented at a future Council meeting.

Gout Clinic: The EMCRO Executive Board has received a request from Dr. Levin asking authorization to publish a scientific article on a statistical comparison of all EMCRO physicians who handled gout patients and the Straub Clinic nurse-managed gout clinic. The Council felt the study had some shortcomings.

ACTION:

It was voted not to grant authorization to Dr. Levin to use the gout study as a scientific paper and that President Iaconetti outline the reasons for the Council decision.

J. Ad Hoc Committee on the Foundation Transfer: Dr. Mills reported that the negotiating teams from HCMS and HMA had met and come to an equitable decision regarding the transfer of the Foundation to HMA.

ACTION:

The Council voted to approve the committee's recommendation subject to final approval, to be submitted by resolution, of the House of Delegates at the special meeting in November.

K. Emergency Medical Services: The contract for the EMS project will be ready for signatures within the next week.

COMMUNICATIONS REQUIRING ACTION

A letter was received from HMSA supporting the objectives of the EMCRO-ECF Project and requesting that an HMSA representative be included on the Educational Audit Committee and an HMSA physician representative be included on the Criteria Development Panel.

ACTION:

It was voted to write a letter to HMSA thanking them for their support of the EMCRO-ECF Project and that we would like to use them as a source of information and with a further explanation that the Educational Audit Committee and the Criteria Development Panel are purely on a professional patient care basis and do not deal with claims review and since HMSA's expertise and interest are primarily claims review and utilization review, as it should be as an insurance carrier, we feel this should not be made a part of either of these two groups and for this reason cannot appoint their representatives.

NEW BUSINESS

EMCRO Workshop: Authorization has been given for two individuals to attend a EMCRO Workshop in Vir-

ginia at the end of October. Drs. Winfred Lee and Iaconetti will attend.

EMS: A request has been received from the American Paramedic Institute asking that a representative from their group be appointed to the EMS Advisory Committee.

ACTION:

It was voted to approve the request of the API.

New EMCRO Projects: Two grant applications have been sent to Washington for an EMCRO-ECF Project and an EMCRO Nursing-Care Review Project.

Medical Economics News Article: A request has been received to meet with a reporter to discuss medical economics. A meeting of the HMA officers and other representatives will be arranged.

ADJOURNMENT

The meeting adjourned at 10:30 P.M.

R. VARION SLOAN, M.D.
Secretary

COUNCIL MEETING

December 15, 1972—5:00 P.M.
Mabel Smyth Conference Room

CALL TO ORDER

The meeting was called to order by President William E. Iaconetti. Present were Drs. Herbert Y. H. Chinn, Thomas P. Frissell, R. Varian Sloan, Grover H. Batten, B. Helms, Sakae Uehara, Winfred Y. Lee, Denis Fu, Kato A. Chuang, Albert C. K. Chun-Hoon, Douglas Bell II, Rowlin L. Lichter, Elisabeth K. Anderson, Ann B. Catts, Roy Kuboyama, and Neal Winn.

In accordance with the newly adopted Bylaws which permit one councillor per 100 members, councillors were added from Honolulu County to serve until the next House of Delegates meeting as follows: Dr. William F. Moore to fill the unexpired term of William W. L. Dang (1974) who is now county president and a voting member of the Council; Drs. Ann B. Catts, Douglas B. Bell II, Albert C. K. Chun-Hoon, Winfred Y. Lee, and Henry Oyama.

MINUTES

The minutes of the October 13, 1972, meeting were approved as circulated.

SECRETARY'S REPORT

The secretary's report was approved as circulated.

SPECIAL PRESENTATION

Mr. Thorson presented a plaque to President Iaconetti from Dr. Carl Hoffman who visited Hawaii recently.

REPORT OF THE TREASURER AND FINANCE COMMITTEE

The Council reviewed the financial report for November. The following recommendations were approved:

ACTION:

(1) To approve the financial statement for the month ending November 30, 1972 subject to audit;

(2) To postpone action on the Roster publication until further cost information can be obtained;

(3) To formally adopt policy for reimbursement of expenses as follows: At any regular or special House of Delegates meeting, there will be no compensation paid to delegates or councillors;

(4) To refund HMA dues to the estate of Dr. Edward Wong from Hawaii County; and

(5) That certified audits be performed every three years with audit statements for the other two years.

REPORTS OF THE COMMITTEES AND COMMISSIONS

A. *Woman's Auxiliary*: Mrs. Schnack briefly reviewed the activities of the Auxiliary to date. The Auxiliary is presently conducting a survey at the request of the AMA Placement Bureau regarding scarcity areas; they have purchased health career and financial aid directories for every high school in the State; they will be distributing the Medicine and Religion pamphlets to the hospitals; and plan to hold a workshop on legislative action in an attempt to recruit new members for AMPAC.

B. *Public Health*: Dr. Kuboyama reviewed the present School Health Pilot Project and asked for Council endorsement.

ACTION:

The Council voted to endorse the School Health Pilot Project on a permanent basis with the present level of services.

Dr. Neal Winn reviewed Act X relating to the Uniform Substances Act which becomes effective January 1, 1973. This law will prohibit dispensing of Class II, III, and IV drugs by physicians. Representatives of the HMA, Department of Health and the Hawaii Dental, Pharmacy, and Veterinarian Associations met recently to discuss the right of practitioners to dispense controlled drugs. The pharmacists were unable to assure 24-hour coverage in all areas of the State and thus an amendment to Act X was proposed and will reestablish the practitioner's right to dispense.

ACTION:

It was voted to endorse the proposal submitted which reestablishes the practitioner's right to dispense controlled substances.

C. *Internal Affairs*: The Convention Committee requested approval for drug companies to have "wet clinics" at the annual meeting.

ACTION:

It was voted not to allow wet clinics at the annual meeting.

D. *Legislative*: The Legislative Committee met to review Act X and concurs with the efforts of the Substance Abuse Committee. A membership mailing is planned to develop a Key-Man system as recommended by the AMA Study Team. The committee recommends that Mr. Kaito be asked to serve as the Legislative Counsel for the coming year.

ACTION:

It was voted to offer Mr. Kaito the position of Legislative Counsel for the coming year.

E. *Medical Education and Peer Review*: Dr. Lee reported that the Peer Review Committee had not met since the last report.

F. *Cancer Commission*: A copy of the Cancer Commission report was circulated for informational purposes.

G. *Emergency Medical Services*: Dr. Chinn reviewed the activities of the Emergency Medical Service Project. Maui County questioned whether the planning for EMS could be concurrent with Honolulu. It was pointed out that the project will be implemented first on Oahu and the following year on the neighbor islands.

H. *Medical Services*: Dr. Chun-Hoon presented an outline for a Plan for Rehabilitation of Workmen's Compensation Patients.

ACTION:

It was voted to support the plan for Rehabilitation of Workmen's Compensation Patients.

It would be helpful to obtain information on the present level of conversion factors being used in the community. Dr. Iaconetti suggested that each physician request a copy of his profile and forward this information to HMA.

ACTION:

It was voted to proceed with Dr. Iaconetti's plan to obtain information on current conversion factors.

I. *Interprofessional and Public Affairs*: Dr. Bell reported on the activities of the various committees in his commission:

Public Affairs: Dr. Lichter reported that the forum held in cooperation with the Hawaii Newspaper Agency was quite successful and plans are underway for the second forum.

Interprofessional Relations: The Hawaii Association of the Professions was formed in November and Dr. deJesus was elected as the first president. The Council discussed the request of the Medicine and Religion Committee to endorse a Conference on the Future of Health Care but did not take action at this time.

The Intraprofessional Liaison Committee submitted financial reports on the Careers Day project. Dr. Bell recommended that the Council consider HMA's involvement before proceeding with another Careers Day program. The role of the Health Careers Council of Hawaii needs to be evaluated as well. Action is not requested at this time. The Intraprofessional Committee requested Council approval to proceed with plans to involve medical students on HMA committees, acquaint nonmembers to the aims and goals of the Association and encourage their participation and membership, and investigate the need for secretarial services by specialty societies.

ACTION:

It was voted to ask the committee to proceed with their plans as outlined.

TV-Radio: The TV-Radio Committee recently considered the use of private advertising for the television show "HMA Hotline." A letter from a private advertising agency executive reported he was unable to find clients who might be interested in supporting the program. The committee asked the Council how it might use the funds budgeted for 1973, and whether these monies could be used for production costs.

ACTION:

It was voted to permit the committee to use the funds as it sees fit.

Health Facilities: The Health Facilities Committee has held discussions with nursing homes, ECF administrators and the DOH regarding levels of care. The Council requested the committee to continue their study. It was also recommended that the Peer Review Committee gather information regarding retroactive denials as well as other pertinent information for use by all county medical societies.

J. *Health Manpower Committee*: The committee was asked to make recommendations regarding the 60-odd graduates of foreign medical schools who have been unable to pass the ECFMG examinations here. The committee recommends that these persons take advantage of programs already existing in several medical centers and geared to meet their specific needs as well as the following reasons: The cost to the State would be out of proportion to the benefits gained in developing such a program here in view of (1) the relatively high cost to the State of initiating such a program here, (2) the fact that the need in Hawaii is not acute due to the termination of enforcement of the residency requirement by the Attorney General and the apparent increase in numbers in physicians being granted licenses to practice, (3) that fact that these persons are in great demand

in their own countries, and (4) the advent of the physician's assistant and nurse practitioner and the relatively immediate availability of this type of person.

ACTION:

It was voted to approve the recommendations of the Health Manpower Committee.

K. Special Invitation: Dr. Chinn questioned whether HMA would be receptive to accepting an invitation to visit Taipei, Singapore, and Hong Kong for professional education purposes.

ACTION:

A motion was made and seconded to thank Dr. Chinn for the invitation. The Council voted approval.

L. EMCRO: Two items were submitted for Council review and consideration: (1) A contract proposal between the Department of Health and EMCRO to provide certain statistics for their cooperative Federal-State-local Health Statistics System. The DOH is already collecting information on vital statistics, health manpower inventory, health facilities inventory and a health survey questionnaire and would like to contract with EMCRO to provide statistics on hospital, ambulatory and long-term care. (2) A memorandum briefly outlining the future of EMCRO. RMPH does not have adequate funding to support the EMCRO project at the termination of National Center Funding in May, 1973. The EMCRO staff has explored the possibility of submitting a new EMCRO grant proposal to the National Center and has invited six organizations to sponsor the new EMCRO.

Both items were discussed at length. Prior to any decision, Dr. Iaconetti asked that the Council study this matter and be prepared to arrive at some decision at the next Council meeting scheduled for January 5, 1973.

NEW BUSINESS

A. Letter from HMSA: Dr. Iaconetti announced that he has appointed an ad hoc committee to meet with HMSA representatives to discuss a proposal for the Medicaid program. Drs. Albert Chun-Hoon, John J. Lowrey and Chew Mung Lum have been asked to serve on the committee.

ACTION:

It was voted to have this ad hoc committee explore the HMSA proposal and report their findings back to the Council. There was one abstention.

B. Foundation Bylaws: Proposed amendments to the Charter and Bylaws for the Hawaii Foundation for Medical Care were circulated for review. These amendments reflect changes that are necessary to create a PSRO within the Foundation. President Iaconetti announced that the past Board of Trustees of the Foundation is hereby dissolved. He appointed a nominating committee to select a new Board as follows: Dr. George H. Mills, chairman, and Drs. Rodney West, Sakae Uehara and Patrick Walsh. Dr. Iaconetti asked that the committee present their slate at the January 5 Council meeting.

ACTION:

It was voted that the Board of Trustees shall be composed of six members from Honolulu County plus one member from each neighbor island county.

It was voted to further amend the Charter and Bylaws of the Foundation by reducing the quorum for the Board of Trustees to a majority.

It was voted to adopt the amended Charter and Bylaws as amended.

C. Site Committee Report: Dr. Pinkerton's report reviewed the activities of the Site Committee as well as items to be considered for any site location. He recom-

mends that an ad hoc committee of past presidents of HMA and/or County Societies be formed to determine how and when required capital is to be raised.

ACTION:

It was voted to permit the President to appoint a committee composed of past presidents of HMA and HCMS to determine wherein the cash resources and a site may be obtained.

D. Appointment of Mabel Smyth Board Representative: Dr. Carl Lum's term on the Mabel Smyth Board expires soon and Dr. Iaconetti asked that he be re-appointed.

ACTION:

It was voted to reappoint Dr. Carl Lum to the Mabel Smyth Board.

E. Meeting with Department of Social Services: Drs. Mills and Iaconetti met with representatives of DSS to discuss the budget which will be presented at the next session of the Legislature. A report on that meeting was circulated for information.

F. Christmas Bonus for Employees.

ACTION:

It was voted to approve a Christmas bonus for employees.

OLD BUSINESS

A meeting of the Executive Board of the Common Fund will be held before the next Council meeting.

ADJOURNMENT

The meeting adjourned at 10:00 P.M.

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COUNCIL MEETING

January 5, 1973 — 5:00 P.M.

Mabel Smyth Lanai

CALL TO ORDER

The meeting was called to order by President William E. Iaconetti. Present were Drs. Herbert Y. H. Chinn, Thomas P. Frissell, R. Varian Sloan, Grover H. Batten, George Goto, J. I. F. Reppun, Douglas B. Bell II, Albert C. K. Chun-Hoon, William F. Moore, Ann B. Catts, Henry Oyama, Winfred Y. Lee, Sakae Uehara, Ed B. Helms, Peter Kim, William W. L. Dang, and DeWitt Smith plus Robert Ballard, Calvin C. J. Sia, Masato Hasegawa, Rowlin Lichter, Alexander Anderson, Max Botticelli, Livingston Wong, Andrew Mortan, Roy Tanoue, Walter W. Y. Chang, and Leigh Sakamaki plus Mr. Albert Yuen and Mr. Marvin Hall from HMSA.

MINUTES

The minutes of the December 15, 1972, meeting were approved as circulated.

SECRETARY'S REPORT

The secretary's report was approved as circulated.

REPORTS OF THE COMMITTEES AND COMMISSIONS

A. *EMCRO*: Drs. Alex Anderson and Max Botticelli reviewed the present status of EMCRO and their plans to submit a grant to the National Center for a new organization called the Hawaii Health Data Utility. Their proposal was discussed at length.

ACTION:

It was voted to recess for an Executive Session.

Prior to the Executive Session it was voted to allow Dr. Hasegawa to address the Council.

After the Executive Session, President Iaconetti announced that the following actions were taken:

ACTION:

It was unanimously voted to continue the EMCRO Project under the present table of organization (HMA sponsorship) and that the Council endorse thoroughly the expansion of the project to include outcome studies.

B. *Ad Hoc Committee on HMSA Proposal*: Dr. Chun-Hoon reported that his ad hoc committee had reviewed the proposal of HMSA and feels the proposal has merit. Mr. Yuen and Mr. Hall answered questions regarding the proposal. The ad hoc committee recommends that the HMA proceed with negotiations.

ACTION:

It was voted to approve the recommendation of the Ad Hoc Committee on the HMSA Proposal and to proceed with negotiations.

C. *Emergency Medical Services*: Dr. Livingston Wong reviewed the activities of the Emergency Medical Services Project and noted they are ready to begin with their four-month training program for mobile intensive care technicians. A copy of a bill outlining the definition, training, and services of such technicians was submitted for Council approval.

ACTION:

It was voted to approve the proposed legislation relating to emergency medical service technicians with referral to the health manpower and legislative committees.

D. *Public Health*: The School Health/Crippled Children Committees met to discuss recommendations for the program on Early Periodic Screening, Diagnosis and Treatment (EPSDT) of eligible individuals under age

21 under Title XIX (Medicaid) required of all states by Congressional mandate. The committees discussed the minimum acceptable standards for periodic screening, implementation of such a program, cost involvements, mass screening versus total health maintenance, etc. Dr. Sia reiterated the position of the HMA which supports primary health care in an ongoing facility in the community and adoring episodic care. The committees asked for Council endorsement of their proposed statement as follows: "That the Hawaii Medical Association encourages the development of a total health maintenance program for the Medicaid family rather than screening *per se*, and that this health maintenance facility should relate to the ongoing medical care facilities of the community at large (be it a private physician's office, hospital, or group clinic) and not be brought into current or new governmental structures."

ACTION:

It was voted to accept the recommendation of the School Health and Crippled Children Committees.

Environmental Health: Dr. Sia reported that the Environmental Health Committee has studied the effects of cane burning and a member of the committee is presently trying to document the effects of cane burning and health. The committee has been asked by the Hawaii TB and Respiratory Disease Association to cosponsor a Mass Transit Symposium.

ACTION:

It was voted to cosponsor a symposium on Mass Transit and actively participate in the program development.

E. *Convention Committee*: Two pharmaceutical firms have indicated their preference to make grants for the scientific program rather than exhibit at the HMA's annual convention. Dr. Sloan asked for Council approval regarding these contributions.

ACTION:

It was voted to accept with sincere thanks, the offer of pharmaceutical firms to contribute to the scientific program of the annual meeting.

UNFINISHED BUSINESS

A. *Progress Report on Trip to Taiwan*: Dr. Chinn reported that plans for the visit to Hong Kong, Singapore, and Taiwan are underway for April 17-30. A membership mailing will be sent out as soon as plans are finalized.

B. *Foundation Board of Trustees*: A slate of nominees for the Board of Trustees for the Hawaii Foundation for Medical Care was presented. Nominations were also accepted from the floor. The nominees were not contacted regarding their willingness to serve. It was therefore decided that those with the highest number of votes would be contacted first until the required number accepted the position. The following were elected: Henry Yokoyama, Rodney West, Chew Mung Lum, Winfred Y. Lee, Ann B. Catts, and Henry Oyama from Honolulu; Sakae Uehara from Maui; Peter Kim from Kauai; and George Bracher from Hawaii.

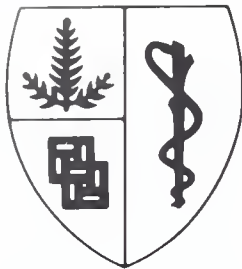
C. *Common Fund*: The executive board of the Common Fund met to evaluate the Common Fund operation. Additional employee time studies were requested prior to any action. It was agreed that State dues should be the same for all counties. The next meeting is scheduled for March 8, 1973.

D. *Roster*: Mr. Steward presented the income and expense figures for producing a new Roster. The new estimates include the reprinting of the newly adopted Bylaws.

ACTION:

It was voted to approve a new Roster.

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STANFORD UNIVERSITY SCHOOL OF MEDICINE

POSTGRADUATE MEDICAL EDUCATION COURSE

— In HAWAII —

MANAGEMENT OF THE SURGICAL PATIENT

May 13 to May 20, 1973

MAUNA KEA

BEACH HOTEL

(The Laurence Rockefeller Resort on the Island of Hawaii)

This course consists of a series of lectures and informal conferences dealing with the practical aspects of the management of a variety of surgical problems. Arrival in Hawaii will be on Sunday, May 13, with departure on Sunday, May 20. Sessions will be held Monday through Friday from 9 a.m. to 12 noon, with a panel discussion on Saturday morning. Elective presentations will be offered Monday through Friday from 7 to 8 a.m.

COURSE OUTLINE

Respiratory failure in surgical patients
Chest injuries
Head and spine injuries
Antibiotic therapy
Plastic surgery for general surgeons
Drainage of the urinary tract
Dissecting aneurysms
Pediatric surgery for general surgeons

Septic shock
Management of sarcomas
Practical estimates of renal function
Myocardial revascularization
Management of intractable pain
Management of urinary tract infections
Office surgery
Management of vascular problems
Primary breast carcinoma
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Edward B. Stinson, M.D., Assistant Professor of Surgery (Cardiovascular)
Kenneth L. Vosti, M.D., Professor of Medicine (Infectious Diseases)

GENERAL ARRANGEMENTS

Registration: Early application for enrollment is advised as a maximum-minimum registration has been established. Tuition for the course is \$275, which must accompany the application.

Hotel: Room reservations for the Mauna Kea Beach Hotel at Kamuela, Hawaii, will be made through the Office of Postgraduate Medical Education at Stanford and will be confirmed to the registrant upon receipt of \$100 deposit. (Beachfront room, Modified American Plan with breakfast and dinner—\$95 per day for two.) A special program will be organized for accompanying wives and children.

Travel: Round-trip transportation at special group rates prevailing at time of departure (government-controlled rate structure) will be available between West Coast cities and Kamuela (direct flight to Hilo). Group departures from San Francisco, Los Angeles, and Seattle or Portland will depend on number of registrants from those areas. Official travel agent is Leo T. Sides, Leo T. Sides Travel Service, 87 Stanford Shopping Center, Palo Alto, California 94304, (415) 321-1111, who will contact registrants to make group arrangements or coordinate other pre- or post-meeting travel as desired (inter-island/Orient/Pacific).

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HAWAII — May 13 to May 20, 1973

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NEW BUSINESS

A. *Employees Handbook:* A draft of the first increment of the Employees Handbook was presented. A few minor modifications were made and the Council asked that the staff and the Board of Governors of Honolulu County review the handbook prior to any action.

B. *AMA Study Team recommendations:* A list of 13 recommendations gleaned from the Ad Hoc Committee on the AMA Study of HMA and the actions taken were circulated for information. It was suggested that a letter be written to the members of the AMA Study Team relaying the progress that has been made regarding their recommendations.

C. *Miscellaneous:* Questions regarding acupuncture were discussed.

ACTION:

It was voted to ask the Peer Review Committee for a medical judgment regarding acupuncture.

D. *HMA/Payne Study:* Dr. Lee questioned whether the HMA/Payne Report could be abstracted for circulation to the entire HMA membership. Many members are already familiar with the study but there are still many who have received very little information.

ACTION:

It was voted to refer this matter to the Medical Education Committee and report back to the next Council meeting.

ADJOURNMENT

The meeting adjourned at 9:30 p.m.

R. VARIAN SLOAN, M.D.

and Mrs. Denis Fu. It was the largest attendance of the year, a fitting honor to the leadership and magnanimity of our congenial hosts.

Present were the following: K. and Edith Izumi, Marmoru and Ayako Tofukuji, Larry and Alizandra Aquiluzan, Mahmood and Judy Mirzai, Sakae and Fumi Uehara, Jim and Betty Fleming, Bob and Steve Moser, Bill and Dorothy Patterson, John and Ilona Briley, Mark and Billie Sowers, Michael and Marcy McDonald, Ken and Lois Haling, Jack Morris, Milton Howell, Cliff and Ginny Moran, John and Sherry Withers, Arthur and Betty Rossberg, Al and Helen Burden, Don and Mary Jo Dietrich, Jose Romero, Bill and Lu Kepler, John Behnke, Ed Underwood and Olive Cole. Guests were Bob and Mrs. Hollison.

The previous meeting's minutes were approved. As of November the financial balance was \$4,691 but Club 19 has not been billing the Society.

Charlie Stewart's transfer from Honolulu to Maui was approved.

A letter of appreciation from Boy Scout executive, Jack Vant 'Groenewout was read. He chaperoned our five Medical Explorers to the HMA Careers Day and had a wonderful time.

The Board of Medical Examiners donated \$150.00 for purchase of medical books to be requisitioned before the end of November, 1972.

The highlights of the HMA Constitutional Convention held November 4-5 were discussed:

Doctor of Medicine was changed to Physician and membership criteria was left to the decision of the county societies.

The transfer of the Honolulu County Medical Society Foundation to Hawaii Medical Association was ratified. The debt of \$31,000 will be paid by future profit from



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the operation. Milt Howell initially opposed this but eventually voted for it.

The County president is now a voting member of the Council and a Councilor's term is three years. Maui County Medical Society will be entitled to three delegates with membership of 51; one for 25 members.

Councilor, Sakae Uehara, urged every member to read Disciplinary Action in Peer Review. He also reported that Special members can vote but cannot hold office; and dues cannot be refunded under any circumstance. The office of assistant president is now legitimized. To qualify for House Delegate, requirement of three years cut down to one year. Council nominations will be made by each component society and Council will appoint members. The President may appoint a Councilor in the absence of a regular Councilor. Any member of the neighboring Society can be a member or chairman of any HMA committee.

President Fu commended Milt Howell, Ed Underwood and Sakae Uehara for their outstanding performance in the Constitutional Convention.

Jack Morris decried the use of chorionic gonadotropins in weight reduction. This has been tried at least 18 years with no definite improvement.

Ed Underwood reported that teams from Planned Parenthood recommended by the District Health Officer will give advice to the patients only with permission of the family physician. Since this is a hospital function, Cliff Moran suggested that this be referred to the Maui Memorial Hospital Medical Staff for discussion.

Budget next year should include expense of an Alternate and a Delegate once a month instead of 5 to 6 times a year.

The following officers were elected for 1973:

President: John N. Withers

Vice President: William C. James

Secretary-Treasurer: Donald E. Dietrich

Delegates: Denis J. Fu, Marion Hanlon

Alternate Delegates: J. Mark B. Sowers, J. A. Burden

Hawaii

The November 16 meeting was held at Waiakea Village, and was presided over by President DeWitt Hendee Smith.

Present were Drs. Takase, Hesterly, Bracher, Mebane, Matayoshi, Best, Steuermann, Tomoguchi, Casile, Padwick, Miles, Ota, Stanard Smith, Mitchel, Ghosh, Hughes, Helms, Ballerini and Davies.

The guest speaker, R. H. Moser, M.D., presented a fine conference concerning drug induced diseases.

The business portion of the meeting concerned the following matters:

The membership voted an approval of a \$5.00 increase in the annual dues. This amount per member would be donated to the Woman's Auxiliary of the HCMS to continue in their work which was acknowledged to be very good.

Dr. George Bracher asked cooperation of the membership in support of the annual United Fund Drive.

Dr. Alan Takase presented the Treasurer's report and this was accepted by the members present.

Dr. DeWitt Smith and Dr. Edward Helms related some of the important subjects emanating from the Con-Con Meeting in Honolulu.

Ruminations continued from 35

tosis in two, and neutropenia in one . . . (6) anti-convulsant drugs (diphenylhydantoin, diphenylhydantoin plus phenobarbital, diphenylhydantoin plus carbamazepine, and all three) caused radiologically demonstrable osteoporosis and hypercalcemia in 91 adult epileptic patients. It was at-

tributed to drug-provoked hepatic microsomal enzyme induction, which resulted in accelerated metabolism of vitamin D . . . (7) thrombocytopenia related to cephalothin (which drops the other shoe, since we already know about RBC and lymphocyte abnormalities attributed to this drug). Mechanism: Platelets are coated with cephalothin, which provokes a clone to generate a specific anti platelet-cephalothin antibody . . . (8) severe oliguria related to bismuth sodium triglycollamate injection for warts . . . (9) Victor Herbert (Mt. Sinai), who has done some fascinating work in elucidating mechanisms of megaloblastic anemia, revealed that metformin, a biguanide hypoglycemic agent popular in Europe (its American cousin is phenformin, DBI), has joined the expanding list of drugs capable of causing malabsorption of B₁₂ or folic acid, or both. There have been no reported instances of phenformin-induced malabsorption; it is used in lower doses than metformin. But the chemical similarity of the agents warrants increased awareness of the possibility . . . (10) (Pentamidine), used to treat *Pneumocystis carinii* infections, has been suspected (not proved) to synergize with the microorganism to cause pulmonary fibrosis . . . (11) a fascinating medical whodunit described three middle-aged ladies with mysterious hypokalemia. All three denied taking diuretics, but it was discovered that two of them were surreptitiously ingesting massive doses of furosemide (Lasix) and the third was gobbling chlorthalodone (Hygroton). . . . And all that was in just two journals!

I suspect our "new specialty"—adverse drug reactions—will continue to harass clinicians as long as new, potent drugs remain in the therapeutic arena. With new capability comes new responsibility. It is a reasonable arrangement.

Central Texas

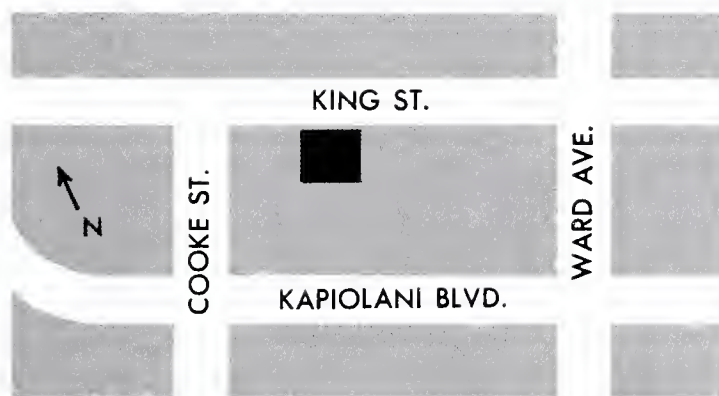
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have provided valuable information in patients without a reliable history.

The danger of digitalis overdosage is always a concern, since it may be lethal. Physicians must remain alert for early manifestations of toxicity and avoid the risk of life-endangering disturbances in rhythm and conduction. Gastrointestinal symptoms, when present, may be helpful but can reflect inadequately treated heart failure rather than drug effects. Hazy vision, difficulty in reading, varicolored scintillating scotomata, and altered red-green perception are clues to digitalis excess. Digitalis may cause every known arrhythmia and conduction disturbance and this may be the initial sign of toxicity. Ventricular premature beats, the most common rhythm abnormality, frequently occur as bigeminy or are multifocal in origin. Atrial premature beats, when nonconducted, are highly suspect and atrial tachycardia, particularly in association with variable A-V conduction, is important evidence for intoxication. Junctional rhythms (nodal) are common and in the presence of atrial fibrillation are virtually diagnostic. When second and third A-V block occurs, excessive digitalis must be assumed even in absence of other rhythm alterations, although commonly these do occur in combination. Early recognition of toxicity is important to prevent emergence of ventricular tachycardia or fibrillation. Alteration in sinus impulse formation and conduction, atrial fibrillation, and flutter are rarely due to this drug. Although there is no specific digitalis antidote, antiarrhythmic drugs such as diphenylhydantoin and lidocaine are useful and potassium administration valuable in absence of A-V block.

In summary, digitalis intoxication is an important hazard; however, when this drug is required, there is no adequate substitute. Careful attention to details of administration and alertness to adverse effect will be rewarded by the delights of therapy and avoid the danger of toxicity.

JAMES A. ORBISON, M.D.

Book Reviews continued from 36

Children with Learning Disabilities: A Five Year Follow-up Study

By Elizabeth Munsterberg Koppitz 218 pp., \$9.75, Grune and Stratton, 1971.

THIS BOOK is a succinct account of a longitudinal study of learning disability children ranging in age from five to twelve years. The growth of individual disabled children is emphasized rather than group results or the characteristics of the remedial program itself. The author's definition of learning disability is so broad and

lacking in specificity that the results may be difficult to compare with other research on learning disability. A qualitative rather than quantitative approach is adopted for data analysis in order to "study the whole child" which may contribute to the generality of some of the author's twelve conclusions. The most important of these appear to be the following: learning disabilities have no single cause nor cure; learning disabilities manifest themselves early in school; most such children have central nervous system dysfunctions; early diagnosis is of considerable importance; children should be grouped according to remedial needs and not IQ scores; and emphasis should be shifted from rehabilitation to prevention of learning disabilities.

JAMES M. DENNY, Ph.D.

Progress in Learning Disabilities, Vol. II

Edited by Helmer R. Myklebust, M.D., 395 pp., \$13.75, Grune and Stratton, 1971.

THIS VOLUME is the second in a series on the learning disabled child edited by Dr. Myklebust. The first, published in 1968, emphasized definition, diagnosis, and identification while the present offers quite technical articles on psychoneurological approaches to learning disability and remediation. Content of the articles ranges from endocrinological and electroencephalographic studies to developmental and emotional aspects of learning disability.

The editor provides neither theoretical structure nor analytical commentary for the articles although a binding theme is how learning can be facilitated in children with such disabilities. The point is made that youngsters with learning disabilities must be viewed first of all as children and secondarily as individuals with special handicaps. The learning disabled are not necessarily emotionally disturbed but display a diversity of personality types and behavior problems. These definitive articles should be of considerable interest to psychologists and students of special education as well as interested psychiatrists, neurologists, and pediatricians.

JAMES M. DENNY, Ph.D.

Medical Pharmacology, Principles and Concepts, 6th Ed.

By Andres Goth, M.D., 704 pp., \$16.50, C. V. Mosby Co., 1972.

THIS IS A well-written introductory textbook. It places commendable emphasis on the pharmacological principles and concepts relevant to medicine. Despite its modest size, all the more significant drugs appear to be included; it is well illustrated and referenced extensively, although a few of the "recent" reviews are 10 to 12 years old. This edition contains new chapters on immunopharmacology, serotonin and antiserotonins, and kinins and prostaglandins. Some areas of pharmacology are given rather comprehensive coverage, but other areas (eg, angiotensin) receive superficial treatment. In general, the depth of treatment would be appropriate for a shorter, more elementary medical school course in pharmacology, but would be inadequate for a relatively thorough course. The format is of high quality and the book seems larger than it actually is because of its heavy paper. It is not intended to be a reference work, but it is rather expensive compared to the widely used pharmacology reference texts. A rough calculation shows that the reference texts provide about 61,000 words per dollar, while Goth provides only about 17,000 words per dollar. In summary, this is an excellent text for students who want a clear presentation of the basic facts (and only the basic facts).

JAMES F. LENNEY

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Hawaii Medical Service Association

The Mid Pac Thurs. Golf Club has been in existence for over 3 years and it holds black and white tournaments every 2 or 3 months in which the club is divided into black and white teams and the losing team pays for a greater share of the post tournament festivities. It has come to everyone's cognizance that **Vic Mori** has never been on a losing team since the inception of the club. It doesn't seem to matter whether Vic wins or loses his individual matches but the team he belongs to invariably rallies to his colors and comes through to win. Some people just have that gift. . . .

Miscellany

The Italians have put a clock on the Leaning Tower of Pisa. Reason: There's no use having the inclination if you don't have the time. (**Harry Arnold's** repertoire)
Marriage is truly a 50-50 proposition. He makes 50 and she spends 50.

"Flattery" by Dr. I. P. Freely. (Anonymous urologist)
Drunk kept going to the men's room. His friend asked, "Next time go for me." So the drunk got up and went. When he returned, the friend asked, "Did you go for me?" "By God, you didn't have to go." (**John Smith's** repertoire)

Drunk came home late.irate wife: "What do you mean coming home drunk at this hour?" Apologized the drunk, "Sorry dear, but I ran out of money." (Likewise from **John Smith's** repertoire)

Louise Tokumaru with ETV is a displaced Californian married to a local. "You know, my husband sometimes uses pidgin. One night after coming to bed, he mumbled, 'Pure delight.' I was flattered, until he explained that 'Pio the light' means 'Turn off the light.'"

Oncology Conference

The case of a 50-year-old Japanese man with adenocarcinoma of the kidney revealed the strange behavior of renal carcinoma. **Glenn Kokame** explained, "We had to postpone surgery because of the agglutination phenomenon." Pathologist **Grant Stemmerman**: "It has a most interesting gamma globulin fraction. It's a strange CA as you know. . . . These tumors have more spontaneous remissions than any other tumor." Urologist **Bill Shiraki** added, "The liver profile was also abnormal. There have been cases of cirrhosis which have improved with nephrectomy." Stemmy: "It does its best to upset the immune system. Try Povera in huge doses and cyclic with testosterone. . . . Response occurs when using testosterone. . . ."

Moderator **Noboru Oishi** disagreed, "Stemmy, I think Ed will agree that radiation will suppress the immune system. Radiotherapist **Ed Quinlan**, "Why should removal of renal cell CA cause an immune reaction? It is strange."

Stemmy: "I think renal carcinoma is increasing among Hawaii Japanese, probably by 3 or 4 times. It's going up in concert with transitional cell CA."

A 65-year-old Chinese man with radical prostatectomy 5 years earlier for CA now had a Lt lung effusion and a Class I smear on cytology. Stemmy: "Of interest is the immunological distortion. . . . It can be a pseudolymphoma rather than a real lymphoma with the 16% eosinophilia. Such tumors frequently develop into clear cut lymphosarcoma eventually. I don't know what this is." **Mel Kaneshiro** prodded by moderator **Noboru Oishi** explained, "Pseudolymphomas are accumulation of lymphocytes. . . . There are a few scattered cases in the literature. . . . We check the humoral antibodies and protein electrophoresis. Sometimes we treat with prednisolone alone and get away with it." Stemmy argued, "One should be cautious about making a diagnosis of lymphoid malignancy with cytology. It's difficult enough with tissue."

A 83-year-old Japanese man was admitted in December with carcinoma of the distal esophagus. ENT man **Hideo Oshiro** explained, "He had CA of the tonsils in April which had been taken care of with cobalt. He is a healthy 83-year-old and the family wants everything done. He had complete obstruction on this admission. I attempted 3 esophagoscopies without finding anything with the old type esophagoscope. I was impressed by **George Suzuki's** technique with the panendoscope for he was able to get a biopsy."

Radiotherapist **Ed Quinlan** suggested, "On distal esophageal lesions, probably surgery is indicated as a curative attempt. . . . If not successful, then irradiate. It's an easy site to irradiate without complications." Surgeon **Shoyei Yamauchi** concurred, "Surgery is still the best. Fairly easy in younger patients." **George Suzuki** added, "He's mentally spry and fairly vigorous. . . . Certainly not senile at all." **Grant Stemmerman** explained, "Any chronic ulcerating lesion of the upper GI tract, about 2/3 have monilia in the membrane. In penetrating lower esophageal lesions, the first nodes involved are at the upper pole of the pancreas."

After all this mumbo jumbo, we weren't sure what the final decision was since it sounded like each was trying to pass the buck. . . . So we inquired. **Hideo** was noncommittal, "It's a good exercise." Stemmy: "It was decided to irradiate." **Shoyei**: "It takes time to irradiate and by that time the patient may be gone." Poor **Ed Quinlan** protested, "I don't like to irradiate a circumscribing lesion like that. Leads to more stenosis."

A 54-year-old Japanese man with undifferentiated oat cell CA of the LUL had a diagnosis made by bronchoscopy. Internist **Eugene Matsuyama** explained, "The wife also died of oat cell CA of the stomach." Stemmy: "Where was the diagnosis made?" **Eugene**: "I think it was made here. . . ."

Noboru Oishi despaired, "6 months to live even with radiotherapy. Paul?"

Paul Condit: "I'll wait till radiotherapy has been tried."

Ed Quinlan also despairing at the results with cobalt therapy offered an alternative: "CCNU and that's not the College of New York or something. . . ."

Someone raised the possibility of brain metastases. Stemmy: "Wonder if rather than a brain scan, spinal fluid protein levels can be of greater value?"

Paul volunteered: "Another combination to think about is Actinomycin D with Vincristine with or without Cytosan. It's fairly toxic, but has good results with radio-sensitive tumors. . . . Usually no complications."

Radiotherapist **Carl Boyer** offered: "It is of some interest that when Actinomycin D is given after the skin reaction subsides from radiotherapy, there results moist desquamation."

✓ ✓ ✓

A 79-year-old Japanese man, post TUR and orchiectomy for adenoCA of the prostate, was now having bone pain. **Noboru Oishi**: "The question is what to do for the pain." **Jack Keenan** offered, "Give estrogen Rx." When **Carl Boyer** rebutted with: "Why estrogen therapy?" **Jack**: "For the same reason we do orchiectomy." When Stemmy stated, "Osteolytic lesions are usually associated with pain while osteoblastic lesions are not." **Carl** argued, "Is that a fact? Who says so?"

Radiotherapist **Hadish** also added, "Plenty of cases of osteoblastic cases have pain and respond to radiation Rx."

Stemmy countered with, "Those cases responding to radiation are probably areas of osteolytic lesions."

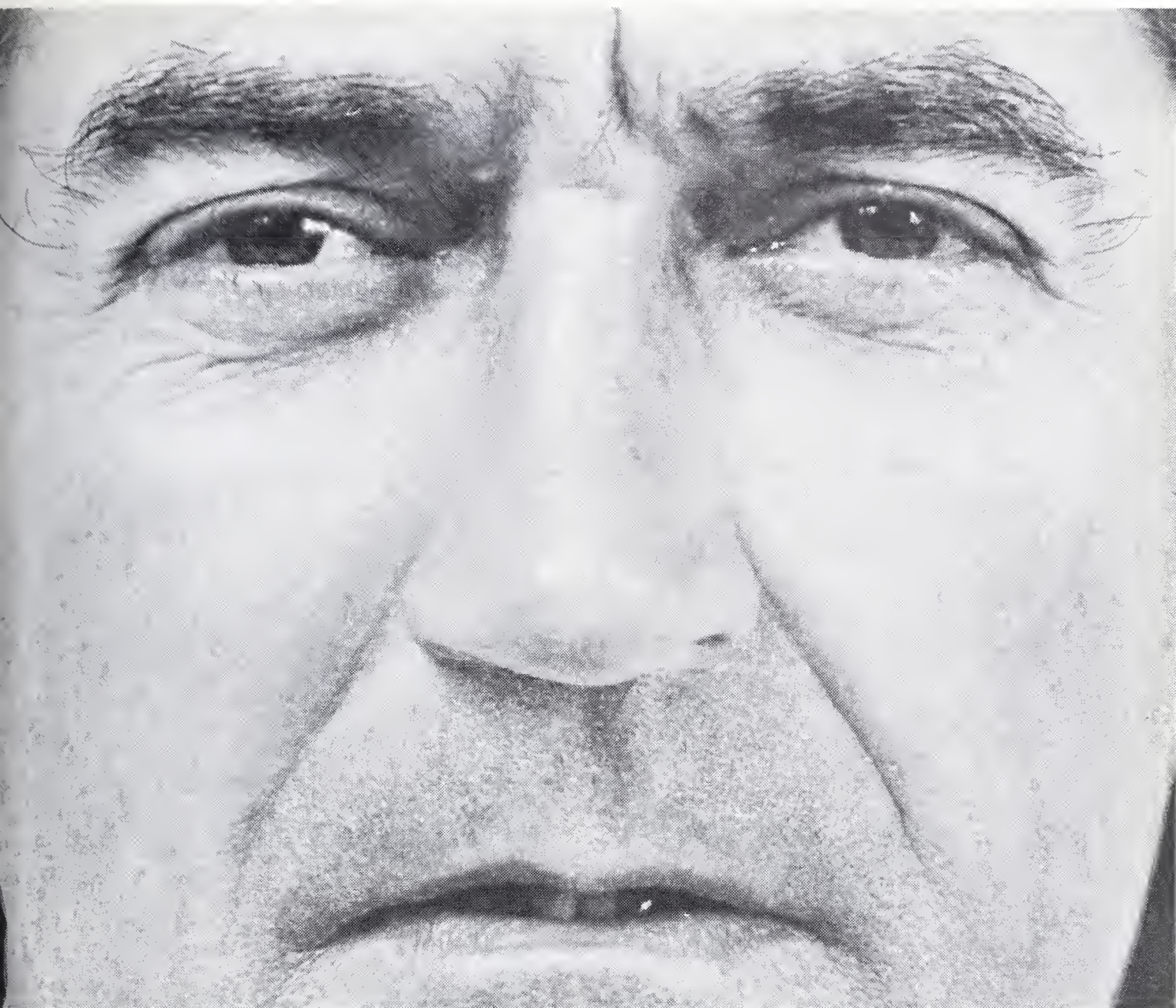
Hadish: "You're reasoning now like a theologian. . . ."

Noboru changed the subject, "Does strontium differentiate between osteolytic and osteoblastic lesions?"

Carl Boyer: "No. . . . It doesn't even differentiate between cancer and non-cancer."

On the subject of estrogen therapy for prostatic CA, **Carl** stated, "Main thing to remember is that it is difficult to make a asymptomatic patient feel better. It accomplishes the same thing whether radiation or orchiectomy and estrogen therapy, ie affects the hormonal milieu."

continued page 54



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Jack: "The Limey's are pretty good at this sort of thing. . . ."

So went this typical repartee between chemotherapist and radiotherapist.

A 48-year-old Japanese woman with carcinoma of the gallbladder and liver metastases had postop 5-FU and a subsequent 14-month asymptomatic plateau. One week PTA, she developed jaundice and was now deteriorating rapidly. Our usually aggressive pathologist **Grant Stemmerman** was philosophical, "There comes a time when a patient should not be harried." Chemotherapist **Quint Uy** nodded, "I agree, no more treatment." Even the attending, **George Suzuki** concurred, "The family did not even want to hospitalize this last time. They wanted to do everything at home." Then to ferment some argument Stemmy commented, "I don't think chemotherapy helped at all," whereupon Quint Uy rose in defense: "I don't think we can say positively whether the patient did or did not respond to 5-FU."

An 83-year-old Japanese man with a 5-year history of lymphoma was admitted with a large greater-curvature ulcer. Gastroscopic biopsies were negative, but bilateral cervical node biopsies were positive. Stemmy: This is lymphosarcoma, rather than Hodgkin's as previously reported. We really didn't know what we were talking about 5 years ago." Stemmy then suggested a "mini lap" to look at the organs, but radiotherapist **Carl Boyer** preferred a lymphangiogram to an exploratory. Chemotherapist **Jack Keenan**: "I tend to disagree." Carl: "I don't care if you disagree. I just gave my opinion." Jack: "I'm just expressing my opinion too." Quint Uy asked mischievously, "Carl, how about a mini radiation?" Carl snarled back, "How would you like a mini punch in the nose?" Then he added, "I feel chemotherapy rather than irradiation." Jack finally agreed, "I think COAP is a reasonable approach."

WHAT YOU AND YOUR DOCTOR CAN DO TO CONTROL CANCER. (A panel discussion held on January 17 with moderator **Ron Lichter**, panelists: surgeon **William Iaconetti**, plastic surgeon **Vic Hay-Roe**, and chemotherapist **Jack Keenan**). The following are excerpts from **Jon Won's** report:

Cancer is not a funny topic, but our four hams kept the evening spirited. . . . When Will Iaconetti defined cancer as the growth of abnormal cells that spread quickly and are detrimental to the host, Ron Lichter quipped, "I have five kids like that—can I call them cancer?"

Someone asked if it would be wise to remove all moles, and Vic replied that if every physician working 8 hours a day did nothing else but remove moles, it would take 50 years. Ron added, "But we would sure clean up the population."

Jack Keenan was asked why physicians always advise women to have examinations for breast and cervical cancers, but never seem to advise men to have prostate and other cancers checked. Jack replied, "That's a good point. There's an old saying about cancer that 'women should keep their hands on their breasts, and men, in their pockets'."

To the question if sexual intercourse causes cancer, Will deliberated a while before answering, "I really don't know." Ron aside was heard to say, "Sure hope it don't." Then Vic explained the use of ultraviolet light treatment. Ron told the story of a woman who reported to the hospital ER after being assaulted by five men. Asked the ER physician, "Were you violated?" "Violated, hell! I was ultraviolated!"

Conference Humor

The 15th Annual USC School of Medicine Postgrad course held at the Sheraton Waikiki had scheduled a panel discussion on Cancer Problems for 7:15 a.m.



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Much to the chagrin of the three panelist, **Chris Gulbrandsen**, **Mel Kaneshiro**, and **Bob Jim**, who had to get up earlier than usual for this session, only two stalwarts showed up in the audience, a 71-year-old hematologist from Oakland, and **Henry Preston**, a 2nd-year UH med student.

A young woman died after a month of hospitalization for "flu-like symptoms and diminished levels of consciousness." At post, she had acute meningoencephalitis and pneumonitis and the Health Department reported Cocksackie B-4. Pathologist **Takushi Hayashi** with his usual deadpan stated, "She apparently showed an unusual desire for sex. . . . In fact she had sex with two different men before becoming comatose. . . ." Then added thoughtfully, "I could become a billionaire if I could demonstrate a casual relation between her sexual desire and Cocksackie B-4."

Aetna Medicare Review Meeting

(AT THE HAWAIIAN REGENT)

A 73-year-old patient with headache was being treated by a pediatrician with hypnotherapy. **Bill Dang** commented, "Sounds like a case of second childhood." **LQ Pang**: "First visit \$15.00. . . . That's cheap. . . . Pay him." We all concurred. . . .

A surgeon had filed a \$1,200 claim for plastic surgery and refused to state whether or not it was cosmetic surgery or a medical necessity. **Jerry Faulkner** recommended: "Refuse the fee as cosmetic surgery, then the surgeon will have to reply." **Bernie Fong** joked, "Say, Jerry, you must be a Chinese Jew." **LQ** chided, "I'm not antisemitic, but where's your hook nose?" **Jerry** replied, "It was medically necessary when it was removed."

The fee for fluorescein angiography, a "By Report" item in the RVS, was being debated. Eyeman **Jerry** complained, "The equipment costs \$5,000 and I was the first one to do the procedure and my fee for \$35 was thrown into the computer. The fees apparently ranged from \$100 to **Jerry's** \$35.00. Master adjudicator **Bernie Fong** recommended, "It's probably comparable to an IV cholangiogram." Someone recommended that we write to the home office and wise **John Lowrey** rebutted, "Remember, each time we write to the home office for an opinion, not to be unhappy if next year the home office sets a fee for across the country. . . . The point is that we should set up local fees rather than ask the home office for an opinion." There remained the problem of how to amortize expensive equipment which are usually at hospital centers on the mainland instead of being privately owned as here. **Niall Scully** shrewdly pointed out, "Our local situation is not analogous to university centers."

(AT BLUE HAWAII)

After the Hawaiian Regent Hotel, Mon Cher Ton Ton, Whaler's Broiler, etc., etc., the cuisine at Blue Hawaii's second-floor dining room was not up to par. The waitress had not even inquired how we wanted our preordered New York cut steaks. **Henry Oyama** got one well done instead of medium rare and **Ted Tseu's** 12 oz. tenderloin looked about a 6 oz. size. **Jerry Faulkner** with his steak and lobster combo complained, "How come **Gabe Ma**, who recommended this place, didn't come himself?" (Gabe was on the mainland and there was even some serious talk about impeaching him as chairman for this *faux pas*, but we decided to condone his error because of his excellent past record). When the meals were finally served, the harried young waitress with a European accent sighed, "Now can I have a heart attack? Hope you doctors remember your first aid." **LQ**, remembering his CPR course and mouth-to-mouth resuscitation threatened sweetly, "You don't know what I'm thinking."

Acting chairman **Bernie Fong** described a patient with "BPH." ENT man **LQ Pang**, who hasn't done a rectal exam since his internship days, asked, "What's BPH?" OB man **Ted Tseu**, who doesn't feel any prostates these days either, chided, "Bet you thought it

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stood for BP high." The case presented the problem of all too frequent serum proteins and other exotic blood work, sometimes even twice daily. **Bill Dang** cracked about the dilutional effect from all the blood loss. . . .

We also learned at this meeting that we had a celebrity in our midst, viz. Bernard Fong, the new president of the United Chinese Society. Bernie told how when Taiwan Vice President C. K. Yin recently passed through Hawaii enroute home from President Johnson's funeral, and on a 24-hour notice he had to muster 450 strong for a banquet in his honor. As a speaker, Bernie told the anecdote about 2nd and 3rd generation local Chinese-Americans being called "Bananas" by anti-hawks. "When the banana skin is peeled, however the fruit underneath is white and probing deeper, the banana is yellow again, meaning basically we're Chinese in spite of our education and Americanism."

When the session ended earlier than usual at 9 p.m. because of the paucity of claims to review, LQ was reconciled. "Guess we only got what we deserved tonight." Jerry was still fuming. "I thought they'd at least get the ice cream right, but they didn't." Genial Medicare director **Bob Grathwahl**, acknowledging the complaints, promised, "We better go back to the Whaler's Broiler, for Ted Tseu needs his dozen fresh oysters on the shell. . . ."

Miscellany

Daffynitions: A psychiatrist is someone who doesn't have to worry as long as others do. A bachelor is a rolling stone who gathers no boss. A platonic friendship is what develops when two persons grow tired of making love to each other. . . .

Riddles: Why is a martini like a woman's breast? One is not enough and three are too many.—**Paul Tamura**. Why shouldn't you pour black coffee into an intoxicated

person? You'll wind up with a wide awake drunk on your hands.—**Catalino Cachero**.

The prim young lady was scandalized to hear the following dialogue: "Emma coma first, I coma next, two assa coma together, I coma again, two assa coma together again, I coma once again, pee, pee twice, then I coma for the lasia time." (An Italian immigrant spelling Mississippi).

A man with impotence had a transplant with good results. His friend heard about it and had a similar transplant done by the same surgeon, but he still could not get an erection. "Let's see it . . . Hmmm . . . No wonder. . . . That's my old one."

What has 50 teeth and holds back a monster? A zipper.

TABLE OF EXCUSES

To save time for management and yourself, please give your excuses by number. The list covers most situations.

1. That's the way we've always done it.
2. I didn't know you were in a hurry for it.
3. That's not in my department.
4. No one told me to go ahead.
5. I'm waiting for an O.K.
6. How did I know this was different.
7. That's his job, not mine.
8. Wait 'till the boss comes back and ask him.
9. I forgot.
10. I didn't think it was very important.
11. I'm so busy I just can't get around to it.
12. I thought I told you.
13. I wasn't hired to do that.

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at Mt. Zion Hospital, S.F., lectured in November on "Immunity and Cancer." Ernest is a blackboard scribbler with an illegible scribble, whose favorite expression is "This is not for quote." His message was as follows:

"The basic approach to cancer treatment is surgery, a little radiotherapy, and chemotherapy. . . . A fourth modality is immunotherapy. . . . We are knocking out the body's immune system with chemotherapy. . . . The patient's defense system is the critical difference in who lives or dies with cancer. . . . Any defect in the lymphocytic system leads to poor cancer control. . . . Immunotherapy has a minor role in advanced cancer. . . ."

Sidney Cohen, clinical professor of psychiatry at UCLA and consultant to the National Institute of Mental Health, lectured at the different hospitals on the management of drug abuse emergencies. Sidney, a craggy featured, gravel voiced, methodical speaker with luxuriant white hair, was knowledgeable and informative.

● re LSD: The LD⁵⁰ is 15,000 mcg, so there is no lethal dose. Treatment of reactions is with phenothiazines, Librium (100mg IV), Valium, or phenobarb.

● re, amphetamines: Reactions are unreliable, unpredictable from moment to moment. . . . Paranoid activity is the rule with speed freaks and even with normal people. . . . Overdose occurs only in a non-tolerant person. . . . Psychic depression from withdrawal is treated with amphetamines. . . .

● re, barbiturates: Impairs motor and mental activity. . . . Danger of additive effects of alcohol and tranquilizers. . . . The treatment of barbiturate intoxication is support of respiratory and cardiovascular collapse. . . .

● re, Narcotics: Results in behavioral toxicity, ie, asocial behavior. . . . In overdose, death is secondary to anaphylactoid shock. . . . Withdrawal is treated with tranquilizers and methadone.

● Other tidbits: Quaalade intoxication is on the rise. . . . Hallucinogens lead to increased sensory awareness and prolongation of sexual activity. . . . Phenothiazines

are physiologic antagonists of amphetamines and LSD, but don't treat street drug cases, since you don't know what else they have taken. . . . Flashbacks are learned behavior and not due to retained LSD or marijuana. . . .

Albert Dorfman, Ph.D., M.D., from U. of Chicago, returning visiting professor of pediatrics at Children's Hospital for January and February, spoke to capacity crowds as usual. "This will be a test for me . . . to see if I learned anything new and a test for you . . . to see if you remembered anything." We found him to be the same fascinating speaker, who combines anecdotes and humor to clarify the most complex subjects in simple language.

● re, the crude streptococcal vaccines formerly used in strep prophylaxis: "It's amazing what doctors can put into patients and get away with."

● re, streptococcal vaccines in general: The problem of a vaccine is that there are over 60 types and the danger of causing rheumatic fever and nephritis by injecting the M Protein. But 85% of strep infections are due to 3 or 4 types and 80% of acute glomerulonephritis is due to Type 12. . . . Experiments with a APM-1 vaccine look promising. . . .

● re, rheumatic fever: "For best results, treat patients who are not very sick." There is general agreement that steroids cause subsidence of symptoms and we still treat carditis with steroids. . . . There is no difference in the results from treating with bed rest and with ad lib activity. For prophylactic penicillin, the literature recommends monthly Bicillin first, then sulfadiazine, and finally oral penicillin, 250,000 units bid. Usually give for 5 years or till puberty; longer in severe cases.

● re, human genetics: Geneticists can be split into two categories, "The Lumpers" and "The Splitters." "Lysosomal diseases are disturbances in the garbage disposal system of a cell."

● re, Sandhoff-Jatzkowitz Disease (a GM₂ Gangliosidosis disease variant): "Dr. Sandhoff was very, very

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unhappy" (because of the addition of Jatzkowitz to the disease's name).

"Mutations probably occur in many forms and many different genes. Practically all are autosomal recessive diseases up to now. . . . How about autosomal dominant diseases? Dominant diseases are structural diseases, and Marfan's may be the first example."

Announcements

PROVOCATIVE ALLERGY COURSE

A practical course in the technique of intradermal provocative food testing and food injection therapy will be offered Saturday and Sunday, March 10-11, 1973, at the Admiral Semmes Hotel, P. O. Box 1209, Mobile, Alabama 36601.

The course will also cover inhalants, chemicals, drugs, fungi, viruses, yeasts, hormones, terpenes, air-pollutants, insects, and contact dermatitis.

The registration fee of \$125.00 also covers one dinner and two luncheons. To register for the course send name, address, and check (payable to Provocative Allergy Course) to: Joseph B. Miller, M.D.; 3 Office Park, Suite 110; Mobile, Alabama 36609.

Room reservations should be made directly with the hotel.

UCLA EXTENSION SYMPOSIUM

A symposium exploring "New Directions in Vascular Surgery" will be offered by UCLA Extension's department of continuing education in health sciences and the UCLA School of Medicine, April 4 to 8, at the Erawan Garden Hotel in Indian Wells, California.

For additional information write P. O. Box 24902, Department of Continuing Education in the Health Sciences, University Extension, UCLA, Los Angeles, CA. 90024.

PHYSICIAN EDUCATION PROGRAM IN FAMILY PLANNING AT UCLA

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COURSE IN LARYNGOLOGY AND BRONCHESOPHAGOLOGY

The Department of Otolaryngology of the Abraham Lincoln School of Medicine and the University of Illinois Hospital Eye and Ear Infirmary, University of Illinois at the Medical Center, will conduct a continuing education course in Laryngology and Bronchoesophagology March 5 to 10, 1973. For additional information write: Department of Otolaryngology, Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, Illinois 60612.

COURSE IN NEUROTOLOGY

The Department of Otolaryngology of the Abraham Lincoln School of Medicine and the University of Illinois Hospital Eye and Ear Infirmary, University of Illinois at the Medical Center, will conduct a continuing education course in Neurotology March 26 through 29, 1973. For additional information write: Department of Otolaryngology, 1855 West Taylor Street, Chicago, Illinois 60612.

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March 5-8, 1973

PROBLEMS OF INTERNATIONAL HEALTH

Co-sponsored by the Naval Department, to be held at LeBaron Hotel, San Diego, Calif.

March 5-8, 1973

MODERN NEUROLOGICAL DIAGNOSIS AND THERAPY

University of Miami School of Medicine, Miami, Fla., to be held at the Eden Roc Hotel, Miami, Fla.

March 12-16, 1973

INFECTIOUS DISEASES

University of Maryland School of Medicine, Baltimore, Md.

March 14-16, 1973

CLINICAL PHARMACOLOGY: RATIONAL BASIS OF THERAPEUTICS

Univ. of California School of Medicine, San Francisco, Calif.

March 19-23, 1973

FOUR AND ONE-HALF DAYS OF INTERNAL MEDICINE: WHAT'S NEW?

University of Alabama School of Medicine, Birmingham, Ala.

March 22-24, 1973

CLINICAL RECOGNITION AND MANAGEMENT OF HEART DISEASE—1973

University of Arizona Medical Center, Tucson, Ariz.

March 26-30, 1973

CARDIOLOGY—1973—TOPICS OF CURRENT INTEREST

Mount Sinai School of Medicine, New York, N. Y., to be held at the Americana Hotel, New York, N. Y.

April 4-6, 1973

RECENT ADVANCES IN DIAGNOSIS AND MANAGEMENT OF PULMONARY DISEASE

Virginia Mason Medical Center, Seattle, Wash.

April 24-27, 1973

PULMONARY DISEASE

University of Pennsylvania School of Medicine, Philadelphia, Pa.

April 25-27, 1973

HEPATOBIILIARY DISEASE IN CLINICAL PRACTICE

Co-sponsored by Presbyterian Hospital of Pacific Medical Center and the Department of Gastroenterology, University of California, San Francisco, to be held at the Hilton Hotel in San Francisco, Calif.

April 25-27, 1973

ADVANCES IN DIAGNOSIS AND MANAGEMENT OF INFECTIOUS DISEASE

University of Wisconsin, Madison, Wis.

May 16-18, 1973

THE RHEUMATIC DISEASES—CLINICAL AND IMMUNOLOGICAL ASPECTS

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Indications: The prevention or correction of potassium deficit, particularly when accompanied by hypochloremic alkalosis in conjunction with thiazide diuretic therapy, in digitalis intoxication, or as the result of long-term corticosteroid therapy, low dietary intake of potassium, or excessive vomiting or diarrhea.

Contraindications: Potassium is contraindicated in severe renal impairment involving oliguria, anuria or azotemia; in untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps, hyperkalemia from any cause.

Precautions: Kato Powder is a concentrate and should be taken only after reconstituting with water as directed. Do not use in patients with low urinary output or renal decompensation. Administer with caution; it is impossible accurately to assess the extent of potassium depletion, or the daily dose required. Excessive dosage may result in potassium intoxication. Frequent checks of the clinical status of the patient, ECG and/or plasma potassium level should be made. High plasma concentrations of potassium ion may cause death through cardiac depression, arrhythmias or arrest. Use with caution in patients with cardiac disease.

Adverse Reactions: Vomiting, diarrhea, nausea, and abdominal discomfort may occur. Gross overdosage may produce signs and symptoms of potassium intoxication: mental confusion, listlessness, paresthesia of the extremities, weakness and heaviness of legs, flaccid paralysis, hyperkalemia, ECG abnormalities, fall in blood pressure, cardiac arrhythmias and heart block. The characteristic changes in the ECG are disappearance of the P wave, widening and slurring of QRS complex, changes of the S-T segment, tall peaked T waves, etc.

Toxicity: Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications." Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

Treatment of Hyperkalemia: 1. Dextrose solution 10% or 25% containing 10 units of crystalline insulin per 20 Gm dextrose, given I.V. in a dose of 300cc to 500cc in an hour. 2. Adsorption and exchange of potassium using sodium or ammonium cycle cation exchange resin, orally or as retention enema. 3. Hemodialysis or peritoneal dialysis. 4. Elimination of potassium-containing foods and medicaments.

Warning: Digitalis toxicity can be precipitated by lowering the plasma potassium concentration too rapidly in digitalized patients.

Administration and Dosage: Mix with water to make a pleasant tomato juice drink. The unit dose packet and the dose-measure supplied in the can each provide 20 mEq of potassium. Usual adult dose—1 packet or 1 measure of Kato Powder mixed with about 2 ounces of water twice daily—supplies 40 mEq potassium per day. Take with meals or follow with ½ glass of water. Larger doses may be required, but should be administered under close supervision because of the possibility of potassium intoxication.

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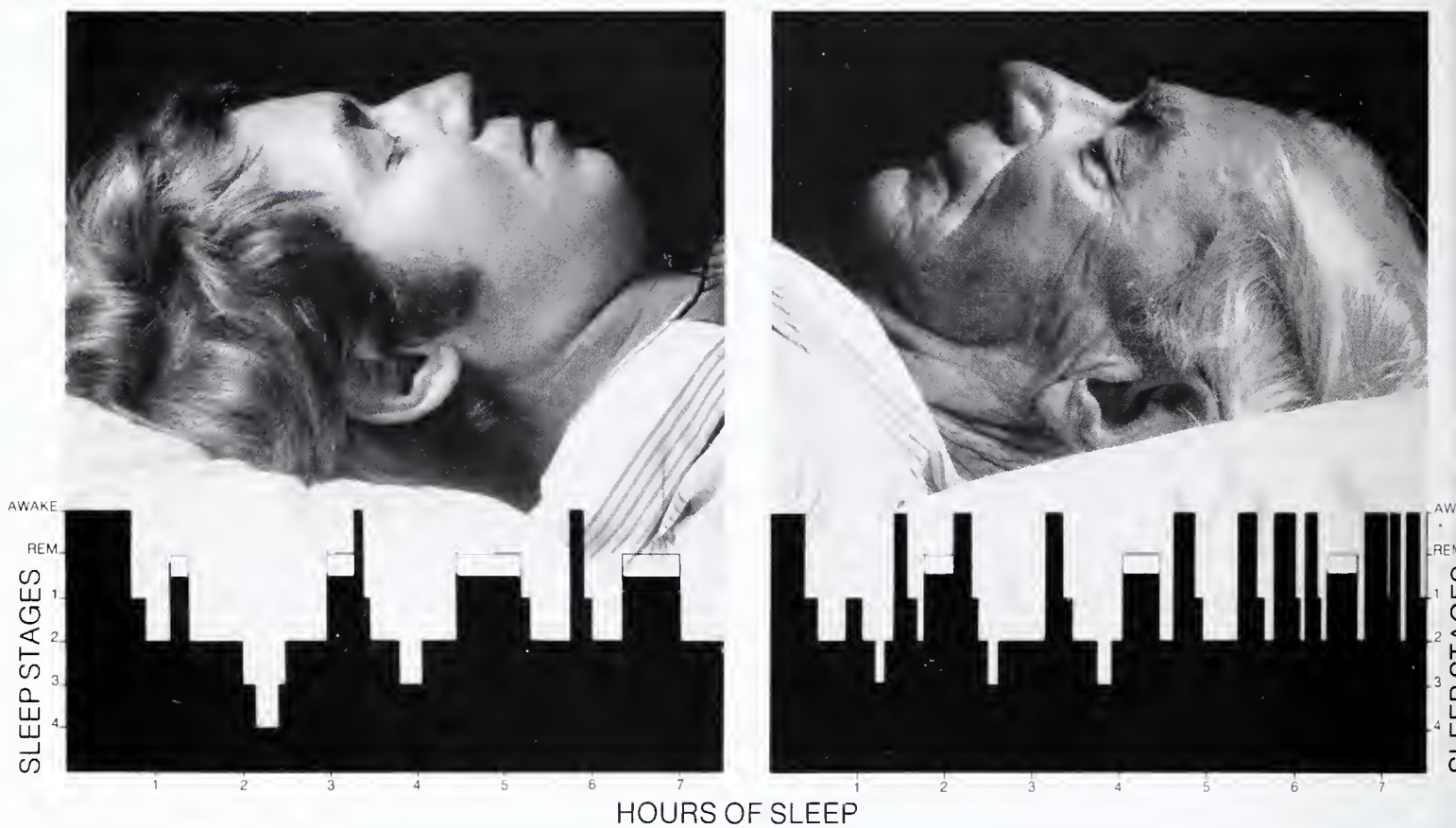
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VOLUME 32 / NUMBER 2



For adult patients who can't fall asleep...and for the elderly patient who can't stay asleep

Polygraphic measurements of insomniac patients enable scientists at sleep research laboratories to construct profiles of sleep like the ones below.^{1*}



Differences in sleep problems demonstrated in the sleep research laboratory

Polygraphic measurements at sleep research laboratories demonstrate 5 sleep stages. Stages 1 through 4 are progressive, from lightest to deepest sleep. The fifth stage is REM sleep, characterized by rapid eye movements and linked with dreaming. Typically, a young adult sleeps more deeply and has more REM time than an elderly person. The youthful per-

son also awakes less frequently during the night. Insomnia problems, too, differ with age. Under the age of 50, difficulty falling asleep is the most frequent complaint, whereas for patients over 50, difficulty staying asleep characterized by frequent and prolonged nocturnal awakenings or very-early-in-the-morning final awakenings appears to be the primary problem.

^{*}The sleep profiles above are artist's representations of abnormal profiles as might be seen in the sleep research laboratory for the insomnia types indicated.

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Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly

in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GI complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

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Insights into the ulcer-prone

This man governs an empire—the section of beach that he combs—and he may have much in common with a business tycoon. Both may be ulcer-prone for similar reasons: both may be difficult to please—both may be demanding, especially of themselves. While there are many types of duodenal ulcer patients, it has been noted* that, characteristically, these individuals are not easily satisfied.

Measuring oneself against one's own expectations or against those of society may be equally trying—equally anxiety-provoking. It is hard to win when both success and failure can demand a similar price.

If the ulcer patient were to modify his expectations, he would experience less anxiety—and perhaps fewer ulcer attacks. In most cases, this would mean altering the entire constellation of psychological attitudes. Many are unwilling to do so, and many are unable. But while the patient is trying to make his best adjustment to his ulcer, he often needs therapeutic relief for both the undue anxiety with which he may be plagued and the hypersecretion and hypermotility that cause pain and spasm.

*Palmer, E. D.: *Clinical Gastroenterology*, ed. 2, New York, Hoeber Medical Division, Harper & Row, 1963, p. 206.

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Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

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Hemodialysis and Renal Transplantations: An Integrated Approach

ARNOLD W. SIEMSEN, M.D., LIVINGSTON WONG, M.D.
and NAMIKO KOMINAMI, M.D., *Honolulu*

Self-hemodialysis can usually be performed at home. If this is not feasible, it can be accomplished in a limited care facility. These two modalities of treatment are preferred to center dialysis because of: (1) better rehabilitation, (2) lower mortality, (3) lower costs, and (4) increased transplant recipient population. With this type of dialysis program, a patient can be treated optimally while he makes a personal decision regarding transplantation, undergoes evaluation for transplant rejection. Further, the physician has the opportunity to remove a kidney before recurrent rejection leads to the necessity for repeated high doses of immunosuppressive drugs, with their associated complications. The one- and two-year cumulative survival rates for our integrated dialysis and transplant programs were 94.5% and 85.6%, respectively.

HEMODIALYSIS, either at home or in the limited care facility, and renal homotransplantation, offer the patient with terminal renal failure an opportunity for complete physical and emotional rehabilitation. These several procedures are mutually complementary. A patient may desire to remain on home dialysis for a period of time while he reaches a personal decision regarding renal transplantation and a suitable donor can be found. If there is no suitable family member to train for home dialysis, he can be sustained in the limited care facility. On the other hand, if a transplanted patient rejects his kidney, he can return to hemodialysis at home or in the limited care facility, and to gainful employment, while he awaits a second transplant. This latter transition tends to dampen the emotional impact of dis-

appointment and gives the patient confidence in his future.

This type of program gives the physician an opportunity to remove a kidney before recurrent rejection leads to repeated high doses of immunosuppressive therapy and the associated complications. This paper will explore the various aspects of such an integrated program.

SELECTION OF PATIENTS

As of March 1, 1971, 3,493 patients registered with the National Dialysis Registry were being treated by chronic hemodialysis in the United States. Of these patients, 36 were under treatment at Saint Francis Hospital. As can be seen in Table 1, 61% of our patients were men as compared to 66% in the national statistics.

TABLE 1.—Sex of patients on chronic hemodialysis (March 1, 1971).

	ST. FRANCIS	NATIONAL REGISTRY
Men	22 (61%)	2304 (66%)
Women	14 (39%)	1189 (34%)
TOTAL	36	3493

It has been estimated that there are 8,000 medically acceptable hemodialysis candidates annually in the United States.¹ If only a portion of these patients were being treated in the United States because of expense in terms of money, personnel and facilities, then a priority or selection system would be needed.

The criteria for selection into the chronic renal program at Saint Francis were:

(a) irreversible renal failure, (b) ability to understand and cooperate in the treatment program, and (c) lack of other significant systemic disease.

The final decision was made by a group of 11 physicians. No one who has met these criteria has been rejected from the program. With these criteria, our rate of acquisition has been 22 new

From the Institute of Renal Diseases of Saint Francis Hospital. Supported in part by Public Health Service Contract #HSM 110-70-417.
Submitted for publication April 15, 1971.

patients annually. It has been estimated that approximately 25 new patients per one million population will fulfill the above criteria annually. These figures agree closely with our current estimated State population and suggest that not many people are failing to be referred for treatment.

As of March 1, 1971, 59 patients had been accepted into the chronic renal program at Saint Francis. Their current status is indicated in Table 2. Thirty-six patients were on dialysis and 13 had

TABLE 2.—*Status of 59 patients treated by chronic hemodialysis (March 1, 1971).*

	NUMBER OF PATIENTS
Currently on dialysis	36 (61%)
Deaths on dialysis	6 (10%)
Functioning transplants	13 (22%)
Post-transplant deaths	1 (2%)
Transferred to another dialysis center	3 (5%)
	<hr/> 59

functioning transplants. There had been six deaths on the dialysis program and one on the transplant program.

SELF-DIALYSIS

Our home hemodialysis training program was started in December, 1968, and our first patient was dialyzed at home in February, 1969. In May, 1970, we were awarded a federal contract to evaluate limited care hemodialysis. Patients who benefit from this program are those who are unable to be dialyzed at home because of a lack of a family member for back-up support or an unsuitable home environment. These patients come into a low overhead facility with limited personnel to perform self-dialysis.

Since December, 1968, we have trained 32 patients to do self-dialysis. Of this number, 23 were at home or in the limited care facility (Table 3).

TABLE 3.—*Number of patients on chronic hemodialysis (March 1, 1971).*

	ST. FRANCIS	NATIONAL REGISTRY
Home and limited care	23 (64%)	1397 (40%)
Center	13 (36%)	2096 (60%)
	<hr/> 36	<hr/> 3493
TOTAL		

Table 3 shows that 60% of the patients on chronic hemodialysis in the United States are being treated in a center. Our figure of 36% was below this national average and reflected a number of patients in training to do self-dialysis. The center should be used only for acute hemodialysis, back-up dialysis for complications which occur in the home, limited care or transplant programs, and training of patients to do self-dialysis. At the present time our center could support 720 pa-

tients on home and limited care programs, with an anticipated back-up dialysis rate of 5%. Because of our transplant program, this figure will probably not be reached in the next 30 years. All chronic maintenance hemodialysis should be done at home or in the limited care facility. Table 4 shows the current ratio of home-to-limited care hemodialysis. It is our feeling that the home pro-

TABLE 4.—*Number of patients on chronic maintenance hemodialysis (March 1, 1971).*

Home	16	(70%)
Limited care	7	(30%)
	<hr/> 23	
TOTAL		

gram will eventually take care of 85% of these patients on chronic maintenance hemodialysis. Of the 16 patients at home, two were being treated on Hawaii, two on Maui, one on Molokai, and the remainder on Oahu.

It has been our practice to first stabilize the patient's uremic state in the center, and when his condition has sufficiently improved, to start him on training for self-dialysis. This training period usually lasts for 8 weeks. During the final 2 weeks of training, the patient trains a family member for back-up in case of complications. When a patient can teach the procedure, he understands it well. After passing a final examination by a physician, the patient goes home. The first dialysis is done at home under the supervision of a hemodialysis home care nurse. Thereafter, the patients call if there are any problems and see the physician once a month in his office for follow-up evaluation of progress. Periodic retraining visits are accomplished by the hemodialysis home care nurse to increase adherence to proper procedures and to train the home patients in new techniques developed in the center or limited care facility.

In the situation where a patient does not have a suitable family member to train for home dialysis or where the home environment is unsuitable, the patient performs self-dialysis in the limited care facility. He is first given a final examination by the physician and thereafter sees the physician once a month in his office.

AGE OF PATIENTS

Table 5 shows the average age of our patients.

TABLE 5.—*Mean age at onset of hemodialysis (March 1, 1971).*

	ST. FRANCIS	NATIONAL REGISTRY
Center	37.2 yrs.	40.0 yrs.
Home and limited care	41.0 yrs.	42.0 yrs.
Transplants	29.0 yrs.	
	<hr/> 36.9 yrs.	
ALL PATIENTS		

The age range for the center program was 7-66 years, home and limited care programs 18-60

years and the transplant program 18-49 years. The means shown in Table 5 do not differ significantly from those from the National Dialysis Registry. They do show that we are dealing with a very young group of patients who become terminally ill at a time when they are most productive and are trying to establish their home and educate their children.

CANNULATION PROCEDURES

Two types of cannulation procedures are employed, namely the Scribner silastic teflon shunt and the internal arteriovenous fistula. Because of the much lower incidence of complications and more patient mobility (swimming, etc.) we are using an increasing number of arteriovenous fistulas. Many of these patients have had their peripheral vessels exhausted because of previous shunt surgery, and it becomes necessary to insert a saphenous vein graft in the upper extremity. The results of this experience are shown in Table 6.

TABLE 6.—Types of arteriovenous fistula (March 1, 1971).

	NUMBER CREATED	NUMBER FUNCTIONING	PERCENT FUNCTIONING
With vein graft	4	2	50%
Without vein graft	10	8	80%
TOTAL	14	10	71%

There was a higher failure rate when a vein graft must be used. Thus, of the 36 patients on chronic hemodialysis, 10 patients (28%) had internal arteriovenous fistulas.

The transplant surgeons perform the cannulation procedures early, thus offering the patient the opportunity to meet the rest of the team. They also discuss with the entire family the current status of transplantation and accomplish the necessary ABO and tissue typing. The final decision as to whether a transplant is to be done or not is left with the patient and his family. Commonly the patient and his family do not come forth with a decision for 9-12 months. Home and limited care hemodialysis provide a logical treatment during the interim.

Home and limited care hemodialysis is preferred over center dialysis in the long range management of terminal renal failure because of: (a) better rehabilitation, (b) lower mortality, (c) less expenditure of money and (d) an increased potential transplant recipient population, and thereby the opportunity for a closer tissue match.

REHABILITATION

A number of emotional problems have been associated with chronic hemodialysis. These include failure to accept the underlying diagnosis,

and subsequent depression from the impact of machine dependency. Perhaps the greatest difficulty is a sense of extreme dependency which developed on center dialysis. Self-dialysis eliminates this great degree of dependency and permits the patient to live a more normal life by allowing him to dialyze at a time suited to his business and social schedules, and thereby enables a far greater degree of rehabilitation than attainable on center dialysis. Furthermore, patients doing self-dialysis look and feel better than similar patients on center dialysis. This may be due to the fact that the need for dialysis is now reduced to a secondary role in the patient's life.

Our rehabilitation statistics are shown in Table 7. Statistics of this type are hard to interrupt as

TABLE 7.—Degree of rehabilitation (March 1, 1971).

	HOME	LCF	CENTER	TRANSPLANT
40 hrs of work per week; or full-time student; or full household chores	50.0%	0%	7.7%	61.5%
25-39 hrs of work per week; or light housework; or part-time student	43.8%	57.1%	15.4%	0%
5-24 hrs of work per week	6.2%	42.9%	38.5%	0%
Unable to work, do light housework, or attend classes	0%	0%	38.5%	38.5%

they do not take into account pre-illness employment nor intelligence, nor lack of incentive for rehabilitation because of retirement or adequate welfare or disability payments. Adequate rehabilitation was effected in 73.8% of the patients on home dialysis and 57.1% of those in the limited care facility.

MORTALITY

In any chronic illness there is variability, not only in the course of a given patient, but among patients. Superimposed are factors of age, sex, and intercurrent diseases. The assessment of prognosis under these circumstances is difficult. However, the calculation of a life table with cumulative survival rates seems justified in evaluating types of management in a given program and in comparing results from different programs.³

Lewis *et al*² have reported the survival data on 302 patients undergoing chronic hemodialysis in 14 programs supported by the Public Health Service. Of their patients, 48 have died. In Table

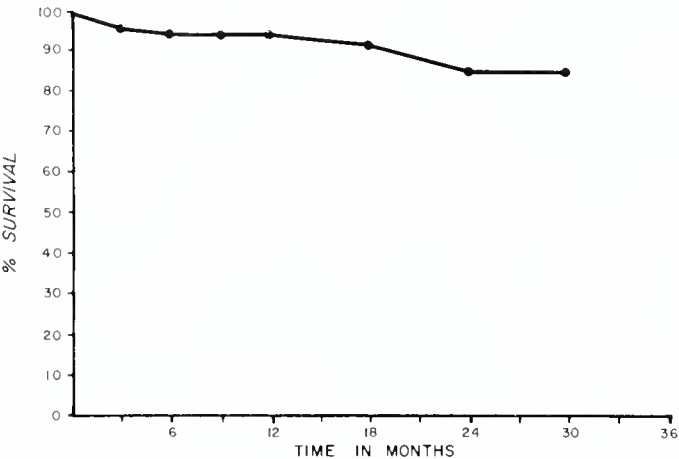
8, these cumulative percent survival rates are compared to the rates from our chronic dialysis center program and our integrated dialysis and transplant programs. In the integrated program,

TABLE 8.—Cumulative survival Rates (%) \pm standard error.

SURVIVAL YEARS	CHRONIC DIALYSIS		ST. FRANCIS INTEGRATED DIALYSIS AND TRANSPLANT PROGRAMS
	<i>PHS Centers (2)</i>	<i>SFH Center Program</i>	
0	100%	100%	100%
.25	96	96.4	96.5 \pm 2.5
.50	90.4	93.9	94.5 \pm 3.1
.75	89.4	93.9	94.5 \pm 3.1
1.00	87.0	93.9	94.5 \pm 3.1
1.5		87.4	91.0 \pm 4.6
2.00	77.3	87.4	85.6 \pm 6.7
2.5		87.4	85.6 \pm 6.7
3.0	67.4		

our one- and two-year cumulative survival rates are 94.5% and 85.6% respectively. This is shown graphically in Figure 1. The shape of this curve indicates a relatively constant mortality rate, like that of such other chronic diseases as myocardial infarction, metastatic breast carcinoma, chronic leukemia, and hepatic cirrhosis, with no worsening of prognosis due to cumulative damage on the program.²

FIG. 1.—Cumulative survival rate for integrated hemodialysis and transplant program.



Our experience now covers 886 patient months (73.8 patient years). As can be seen from Table 9, we have had one death in the home program, five on the center program, and one in the transplant program. The mortality on the center pro-

TABLE 9.—Mortality (March 1, 1971).

	PATIENT-MONTHS OF TREATMENT	DEATHS	DEATHS/1000 PT. MONTHS
Home	239	1	4.2
Limited care	21	0	
Center	535	5	9.3
Transplants	91	1	11.0
TOTAL	886	7	7.9

gram was twice that of the home program and bore no relationship to duration on the program.

The transplant mortality was slightly higher than that in the center dialysis program. The overall mortality on the integrated program was 7.9 deaths/1000 patient months. All dialysis deaths have occurred in an interdialytic period and have been caused by cerebral vascular accidents (3), rheumatic heart disease (1), systemic Pseudomonas infection (1) or unknown cause (1). The transplant death was caused by systemic Pseudomonas infection.

The statistics from the 1971 Kidney Transplant Registry show a kidney survival at one and two years of 78% and 75% respectively for a living related donation and 52% and 41% respectively for a cadaver donation. The registry doesn't record patient mortality; however, in one recent large study by Starzl *et al*⁴ with a two to seven and one-half year followup, in 131 consecutive transplants from living related donors there were 40 deaths. In the same study, with a followup of one to seven years in 58 transplants from unrelated donors, there were 39 deaths.

EXPENDITURE OF MONEY

The third advantage of self-dialysis is the reduced cost over center dialysis. The major fixed expenses in center dialysis are personnel, disposable supplies and hospital overhead. With self-dialysis, the cost of personnel is greatly reduced or eliminated. Over the past two years we have developed methods to re-use some of the disposable supplies, of which the most expensive is the coil. These procedures were being used in both the home and limited care programs.

We were getting 8.4 dialyses per coil in the limited care facility. With our direct dialysis costs of \$15.56 per dialysis in the limited care facility, we were finding that the most expensive supply costs were the chemicals to make the dialysate. The hospital overhead is eliminated in the home program and somewhat reduced in the limited care facility which is located outside of the hospital.

The mean cost of these various forms of hemodialysis is given in Table 10. These costs included

TABLE 10.—Cost of hemodialysis including complications and all professional fees) (March 1, 1971).

	COST/DIALYSIS	ANNUAL COSTS	PERCENT OF CENTER COSTS
Home:			
No re-use	\$ 48.06	\$ 7,497.36	38.6%
With re-use	27.86	4,346.16	22.4%
All patients	41.99	6,550.44	33.7%
LCF:	91.76	14,314.56	73.7%
Center:	124.46	19,416.42	

all hospital and professional fees as well as charges for all complications such as hypermenorrhea, bilateral nephrectomy for bleeding polycystic kid-

neys, significant infections, etc. The cost of home dialysis with coil re-use has been approximately 1/5 that of center dialysis. The mean cost of center dialysis in the United States as determined by a recent University of Maryland survey was \$187.00. The mean cost of home dialysis in the U.S. was \$72.00. In the 12 contract Public Health Service hemodialysis centers, the average cost of center dialysis was \$229 and the average cost of home dialysis without re-use was \$27.75. These figures do not contain the costs of complications, which our figures do reflect. Cost reduction continues in the limited care facility and it is anticipated that a patient load of 16 patients will drop the cost to \$60.00/dialysis, or \$9,360.00 annually. Thus, the cost of limited care hemodialysis will probably be about half the cost of center dialysis.

There was no significant difference in the clinical course of these patients who were re-using coils as compared to those who were not re-using, as measured by hematocrits (Hct), blood urca nitrogens (BUN), creatinines (Cr), incident of shunt revisions, or infections. The mean interdialytic Hct, BUN, and Cr for those patients re-using and not re-using coils at home and for those patients re-using two types of coils in the limited care facility are shown in Table 11. The number

TABLE 11.—Laboratory studies, Mean ± S.E. (March 1, 1971).

	HCT.	BUN	CR.	
Home:				
No re-use	24.8 ± 1.5	48 ± 4.5	9.6 ± .8	(n = 10)
With re-use	25.7 ± 1.6	42 ± 6.1	8.8 ± 1.5	(n = 6)
LCF:				
EX03 re-use	24.9 ± .9	48 ± 7.3	8.8 ± 1.0	(n = 3)
145 re-use	24.0 ± 3.1	41 ± 6.6	9.8 ± .7	(n = 3)

of patients (n) in each series is shown. The values were not significantly altered by re-use. The number of shunt revisions in the various dialytic programs are shown in Table 12. When these are

TABLE 12.—Shunt revisions (March 1, 1971).

	PATIENT MONTHS OF TREATMENT (CORRECTED FOR FISTULA)	NUMBER OF REVISIONS	REVISIONS/1000 PATIENT-MONTHS
Home	189	40	212
LCF	21	5	238
Center	518	108	208
TOTAL	728	153	210

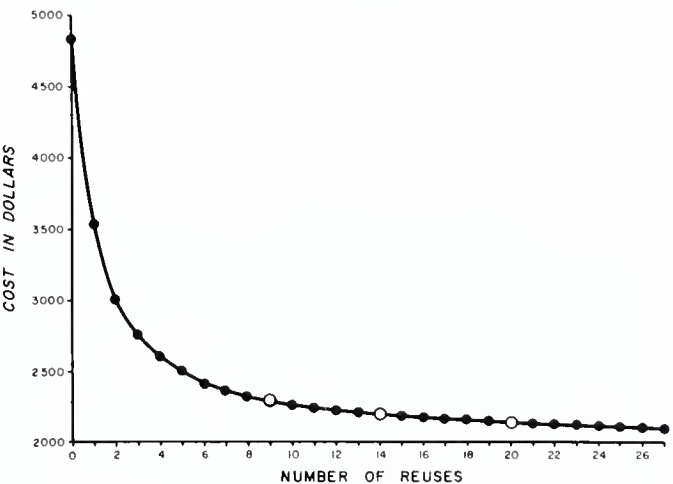
corrected for revisions per 1000 patient months experience, the values are all similar. The number of shunt infections are depicted by the same programs in Table 13.

TABLE 13.—Shunt infections (March 1, 1971).

	PATIENT-MONTHS OF TREATMENT (CORRECTED FOR FISTULA)	NUMBER OF INFECTIONS	INFECTIONS/1000 PATIENT MONTHS
Home	189	17	90
LCF	21	1	48
Center	518	28	54
TOTAL	728	46	63

There was an increased incidence of infections per 1000 patient months in the home program, but the majority of these had been experienced by two patients who were not re-using coils. There have been no other complications of the re-use procedure; thus, it is felt to be safe and indicated because of the cost reduction.

FIG. 2.—Annual direct cost with re-use of 145 coil.



The mean cost of renal transplantation in our first 14 transplants including all complications and professional fees is shown in Table 14. The greatest cost occurs in the first three months, where nearly everyone experiences at least one acute rejection. The annual maintenance costs are estimated at \$1,000.00 after the first year.

TABLE 14.—Cost of renal transplant (including complications and all professional fees) (March 1, 1971).

1st year:	
1st 3 months	\$14,863.45
2nd 3 months	3,458.20
last 6 months	831.35
	\$19,153.00
Maintenance each year	\$ 1,000.00

Table 15 is a model of a ten-year cost experience of hemodialysis in our program, assuming the patient is trained for home dialysis during his initial three months. The total cost for the 10-year

TABLE 15.—Cost of hemodialysis, 10 years.

1st year:	
3 months in center	\$ 5,299.98
9 months at home	3,259.62
	\$ 8,559.60
9 years of home dialysis @ \$4,346.16	\$39,115.44
	\$47,675.04

period would be nearly \$48,000.00. If a typical patient had a transplant after one year of dialysis, the 10-year-cost model is shown in Table 16. The

TABLE 16.—*Cost of hemodialysis and one transplant, 10 years.*

1st year hemodialysis	\$ 8,559.60
2nd year transplant	19,153.00
8 years of maintenance of transplant	8,000.00
	<hr/>
	\$35,712.60

cost of his 10-year treatment would be approximately \$36,000. If this same patient rejected his transplant after one year and required a second transplant following one year of dialysis, his total cost model would be as shown in Table 17. The 10-year costs would be slightly above \$51,000 and approximately the same as 10 years of dialysis.

TABLE 17.—*Cost of hemodialysis and two transplants, 10 years.*

1st year: Hemodialysis	\$ 8,559.60
2nd year: Transplant with rejection	19,153.00
3rd year: Hemodialysis	4,346.16
4th year: Transplant	19,153.00
6 years of maintenance of transplant	6,000.00
	<hr/>
	\$51,211.76

It is apparent from these data that a \$20,000 major medical health insurance program would soon be exhausted. In order for these patients to qualify for Department of Social Services financial assistance, they must sell all of their tangible assets and expend this money first. After all of this is done, the patient loses incentive for rehabilitation. This is a tragic loss, for these patients can be productive and useful members of society, pay for their children's education and support their families if financial aid is provided for their medical expenses. We have asked responsible individuals in this State for advice and assistance in the financial problems involved. With the sums of money involved it seemed necessary to seek State as well as Federal support. The Fifth Hawaii Legislature enacted Act 99 which provided \$300,000 for one year to give financial assistance to these patients after all third party sources of money had been expended. Through the federal support of our limited care facility and our continued cost of reduction program it is anticipated that \$300,000 will be sufficient for the ensuing year despite continued growth of the program.

Recently, the Hawaii Medical Service Association has started a policy of paying up to \$2,000 annually after the expenditure of the \$20,000 major medical coverage. By further cost reductions planned for this year, and some personal payments on the part of the patient, we feel the treatment by long-range home hemodialysis can

be supported without governmental participation. Several potential problem areas remain. First, how can the patient afford a transplant if all of his insurance is exhausted? Second, 15% of the patients will probably be unable to go home and take advantage of the reduced costs of home dialysis, and will require slightly more expensive treatment in the limited care facility. Some type of additional State or Federal support will be needed in this area.

RECIPIENT POPULATION

Through the use of home and limited care hemodialysis, a large recipient population can be developed which can more effectively use donors which had a closer immunological match. If these patients were held in the center, it would soon become saturated and unable to accept new patients. Through our linkage with the national communications network and other centers, there is a far greater chance for our patients to receive a suitable kidney. A living organ bank called the Makana Foundation was started in 1970 by a group of people representing interested laity and all physicians with transplant interests. This Foundation offers an individual the opportunity to donate any part of his body for use in organ transplantation. The registry is maintained at the Hawaii Blood Bank. When a person is critically injured in a car accident, it creates additional emotional trauma if a physician must ask the relatives for permission to remove organs for transplantation. This can all be avoided by permitting an individual to make his personal wishes known to the Makana Foundation early in life.

SUMMARY

The higher cost center dialysis program was used to perform acute dialysis, train patients for self-dialysis and to back up the home, limited care, and transplant programs. The long range maintenance of most patients on chronic dialysis was at home, with a few being treated in the limited care facility. The one- and two-year cumulative survival rates for our integrated dialysis and transplant program were 94.5% and 85.6% respectively. Rehabilitation of patients has been good. High costs remain a significant problem; however, marked savings have been effected by switching to self-dialysis, either at home or in the limited care facility, and through the re-use of disposable supplies. Despite rising costs of personnel and supplies, methods currently under study should provide further reduction in costs over the ensuing year.

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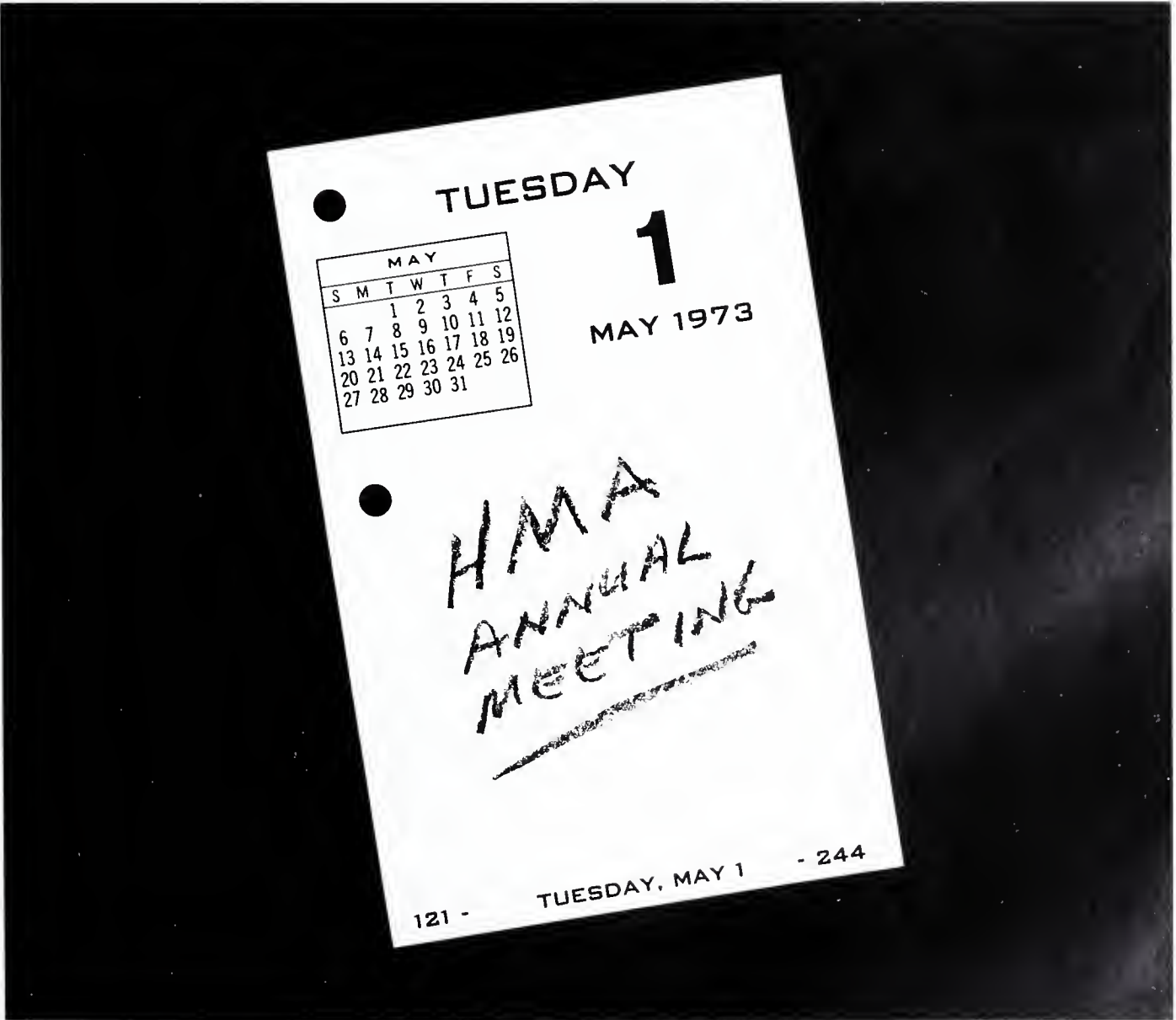
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Immunoglobulin levels of cord and infant blood may help point up infection.

IgM Levels in the Newborn

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In recent years, immunoglobulin levels in the newborn infant have been evaluated on the basis of immunological relationships between the mother and infant. The immunoglobulins usually found in cord blood are predominantly IgG and IgM. IgG molecule, in general, tends to traverse the placental barrier primarily due to its small size (molecular weight = 160,000) and its concentration in cord blood usually reflects the maternal level. On the other hand, IgM (molecular weight = 1,000,000) does not pass the placental barrier and its level in cord blood therefore is considered to be of fetal origin.

IT HAS been shown by Alford and others^{1, 2} that the chronic intrauterine infections of rubella, syphilis, cytomegalovirus and toxoplasma may lead to elevated levels of IgM in the cord blood. In some cases, infections which had begun *in utero* were diagnosed in apparently normal newborns by investigations which were prompted by the finding of an increased IgM in cord blood. It has therefore been suggested that cord blood IgM determination may be a useful screening test for infections acquired *in utero*.

It is the purpose of this investigation to: 1) establish a technique for ready measurement of IgM levels; 2) determine the range of IgM levels in normal newborns in Hawaii; 3) obtain a preliminary idea of the usefulness of IgM screening for infections; and 4) follow IgM levels in a limited number of newborns with acute infections to evaluate the potential clinical significance.

MATERIALS AND METHODS

IgM determinations were performed by a single radial immunodiffusion technique using "Quanti-

Plate" test kits, manufactured by Kallestad Laboratories, Inc., Minneapolis, Minnesota. Each plate contained 24 wells which allowed 18 to 21 IgM determinations (the rest of the wells being used for standards). Three sets of standards of known concentration of IgM obtained from Kallestad Laboratories were used with appropriate dilutions. Six lambdas of each test serum sample and standard were placed in each well with a Hamilton microsyringe (Hamilton Co., Inc., Whittier, California). The plates were then incubated for 18 hours at room temperature.

The diameter of the circular precipitation ring around the well was measured with a viewer with a fine scale (Kallestad Laboratories Viewer). Standard curves were constructed by plotting the diameter of the precipitation ring against the logarithm of the IgM concentration in mg/100 ml. As reported in the literature, a curvilinear relationship was obtained from the standard curve³ (Figure 1).

It was found by studying the standards run on each plate that four sets of standard curves were sufficiently accurate to be used in all the IgM determinations.

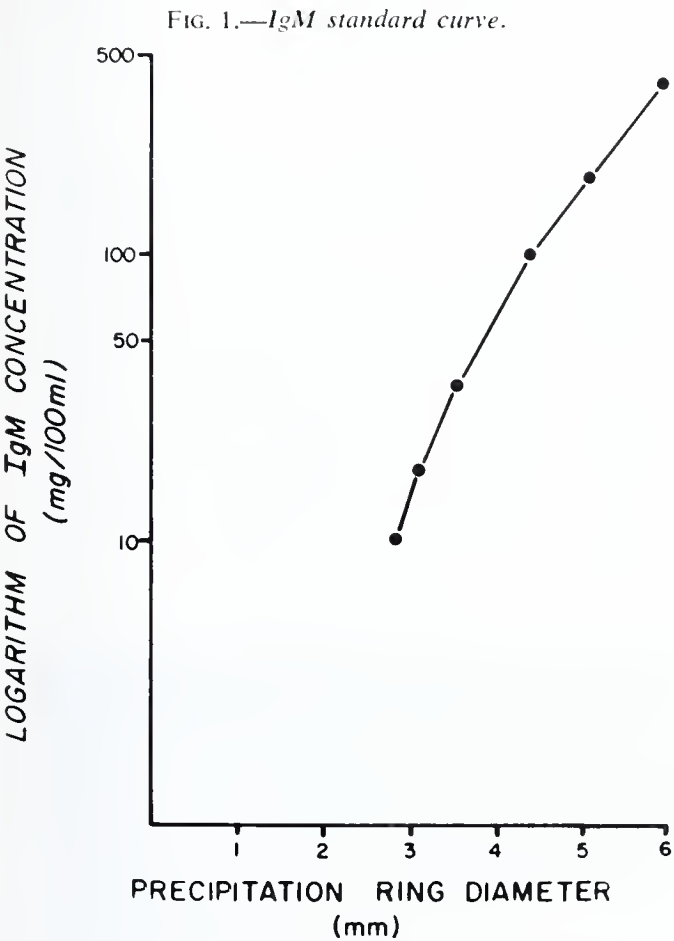
Cord blood specimens were obtained at the time of delivery, spun down and the serum frozen prior to testing. Specimens from newborns were generally obtained by heel-stick. IgM determinations were usually performed within two or three days of collection.

RESULTS

Over a two-month period, cord blood IgM determinations were performed on 523 routine deliveries. There was no history of significant maternal infection in this series. The results were grouped according to the standard curve used to calculate the IgM. The mean IgM and two

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standard deviations over the mean were determined for each group. The mean for the total was 17.0 mg/100 ml. Of the 523 specimens, 20 were more than two standard deviations above the mean.



The mean of the 20 elevated IgM levels was 41.8 mg/100 ml, and the median was 31.0 mg/100 ml. The discrepancy between mean and median was mainly due to one sample with a markedly high IgM of 220 mg/100 ml. Five of the 20 had some perinatal problem (Table 1). The re-

TABLE 1.—Case studies of five patients with elevated cord blood IgM values.

- 1) IgM = 24 mg/100ml, premature boy, breech delivery, less than 30 weeks gestation. The patient developed respiratory distress syndrome, apneic spells, atelectasis and hydrocephalus and died at age four weeks.
- 2) IgM = 66 mg/100ml, boy, 44 weeks gestation. Mother had a temperature of 100° at delivery and the cord was stained with meconium. Hospital course was uneventful.
- 3) IgM = 24 mg/100ml, girl, term. The patient had mild transient bradycardia but otherwise an uneventful hospital course.
- 4) IgM = 26 mg/100ml, boy, term. Amniotic fluid was meconium stained and the cord was wrapped twice around the neck. There was placenta accreta. Hospital course was uneventful.
- 5) IgM = 220 mg/100ml, boy, term. Mother was a 41-year-old Samoan with little prenatal care. The VDRL was negative. At age three weeks, IgM was 180 mg/100ml. The patient appeared normal in the nursery and at his first and second followup visits. The patient has returned to Samoa so that further followup is not possible.

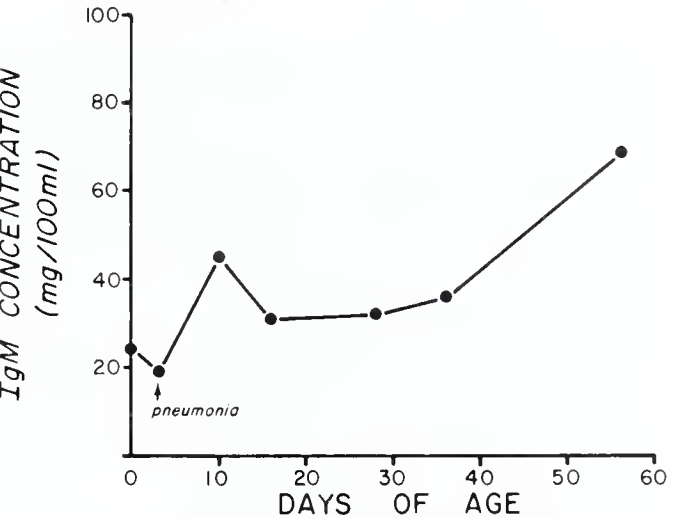
maining 15 patients had completely uneventful hospital courses.

In addition, one patient had a cord blood IgM of 120 mg/100 ml but a heel-stick determination at age three days was only 18 mg/100 ml. This result suggests that placental leakage of maternal blood gives a falsely high IgM level in the cord blood. This problem has been often reported and may account for as many as two-thirds of elevated cord IgM levels.^{4, 5, 6} Obtaining cord blood samples by venipuncture from the cord may eliminate this source of error.

A number of patients known to have infections had serial IgM levels studied. Two examples of the IgM response to acute infections are given:

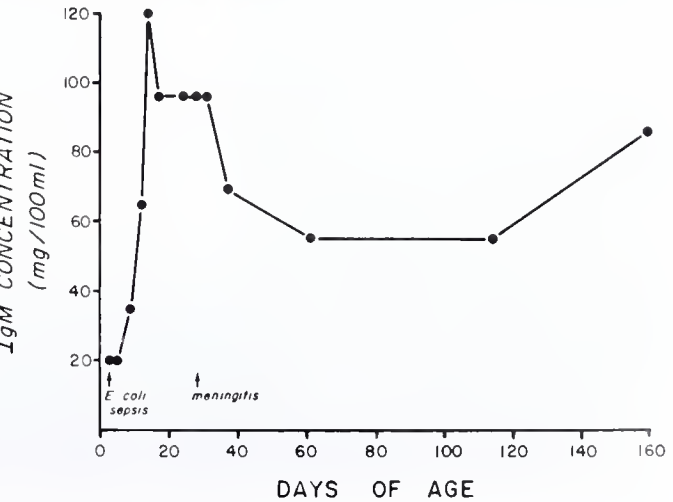
- 1) A 32-week-gestation boy developed pneumonia at age three days but responded to antibiotics (Figure 2). IgM level was 45 mg/100 ml by age 10 days (elevated in comparison with normal IgM levels for this age reported by Alford⁴).

FIG. 2.—Serial IgM levels in a premature infant with neonatal pneumonia.



- 2) A 36-week-gestation boy developed an *E. coli* sepsis at age three days (Figure 3). Subsequent course was complicated by a

FIG. 3.—Serial IgM levels in a neonate with *E. coli* sepsis and meningitis.



recurrence of sepsis followed by meningitis, subdural effusions, and hydrocephalus. IgM level was 65 mg/100 ml at age 12 days and 120 mg/100 ml at age 15 days, the highest level attained by this infant.

Six patients with pneumonia were studied. In five of these, IgM levels were measured before 48 hours of age and their average was 23.9 mg/100 ml. In the sixth, the first measurement done at age six days (two days after clinical onset of pneumonia) was significantly elevated to 77 mg/100 ml.

Twelve patients were born after the membranes had been leaking or ruptured for more than 24 hours. IgM levels were determined in the first few days of life and the average was 15.5 mg/100 ml. Two infants of this group who developed pneumonia had initial IgM levels of 13 and 29 mg/100 ml. The others remained asymptomatic.

One patient was born with a full-blown rubella syndrome confirmed by the finding of rubella specific anti-IgM in the infant's blood. IgM levels were between 100 and 200 mg/100 ml over the first two months of life.

In addition, a direct immunodiffusion technique¹³ designed for rapid measurement of IgM was also employed by this study. However, results obtained by this method did not correlate well with those obtained by the single radial immunodiffusion method.

COMMENTS

Mean values of cord blood IgM from various series reported in the literature have ranged from 5.8 to 13 mg/100 ml.^{3, 4, 5, 7, 8, 9, 14, 15} The upper limit of normal has generally been around 20 mg/100 ml although there has been a wide range reported.

McCracken reported two standard deviations above the mean at 44 mg/100 ml;³ Alford found 10% of his values to be greater than 19.5 mg/100 ml;² Sever reported only 0.8% of his values greater than 20 mg/100 ml in a middle class Caucasian population;¹⁰ and Miller found 4% of his values greater than 16 mg/100 ml and 2% greater than 20 mg/100 ml.⁶

The high mean level of IgM of 17.0 mg/100 ml in our series may be related to at least two factors. First, most reported studies have been done using specially prepared plates which contain a low titer of anti-IgM in the agar. Our study using commercially available IgM immunoplates would tend to give higher readings. Secondly, higher IgM levels have been reported in a Japanese population although not in cord blood.¹¹ Our present data has not been analyzed for racial distribution.

Of the 20 patients with IgM levels greater than two standard deviations over the mean, none was shown to have a definite infection. The most in-

teresting of these was a Samoan patient, but unfortunately adequate followup was not possible.

In Alford's study,⁴ all patients with true elevations (ie, not due to maternal blood contamination) of cord blood IgM were studied with bacterial cultures of throat, stool, urine, blood and cerebrospinal fluid; viral cultures for rubella and cytomegalovirus; x-rays of the chest, skull, and long bones and examination of the cerebrospinal fluid; and, where indicated, a VDRL, FTA-ABS test for syphilis, Sabin-Feldman dye dilution test for toxoplasmosis and hemagglutination-inhibition (HIA) test for rubella. He found an incidence of 34% with infection in the group with elevated IgM levels as compared to 0.8% with infection in the control group. These were primarily infections due to cytomegalovirus, toxoplasma, aseptic meningitis and infections of the urinary tract.

Miller⁶ found only one infection out of 37 true elevations of cord IgM in a series of 5,006 cord blood samples. In our study, as in Miller's, infections were not actively searched for in asymptomatic infants. Furthermore, our patient population was primarily middle class, as opposed to the indigent population in Alford's studies. These factors are probably important in our failure to find infections in those with high IgM levels.

In response to acute infection, there is a rise in IgM in two to seven days.⁹ Our data showed a similar pattern of response to infection. Korones⁵ reports that this rise generally does not occur until after there are obvious physical signs of infection. However, Blankenship⁹ feels that such a rise may often point to an asymptomatic urinary tract infection or aseptic meningitis.

In cases of neonatal pneumonia, elevated IgM levels are seen in about 80% within ten days.^{5, 12} In our series of six patients, the level of IgM within two days of the onset of symptoms was considerably higher than the mean.

In our patients with mothers having prolonged rupture of membranes, the overall level of the initial IgM was not increased. In the two who went on to develop pneumonia, the initial IgM level was also within normal limits.

The value of IgM determinations in discovering cases of congenital rubella has been controversial. Alford,² in his screening program, discovered several cases of unrecognized rubella syndrome. On the other hand, McCracken³ found that only 18% of patients with congenital rubella had an elevated IgM. Furthermore, these were generally patients with severe disease and obvious clinical manifestations. Our patient would fall into this category.

CONCLUSIONS

The mean IgM level of 523 cord blood samples was 17 mg/100 ml, using a commercially avail-

able radial diffusion method for IgM. The usefulness of IgM determinations as a screening test for acute or chronic perinatal infections in a population such as ours has not been demonstrated. It is apparent that in order to pick up asymptomatic infections on the basis of an elevated IgM, more extensive investigations than were done here must

be carried out. Nevertheless, an IgM determination may be a useful adjunct in the evaluation of a patient with a possible infection in the newborn period.

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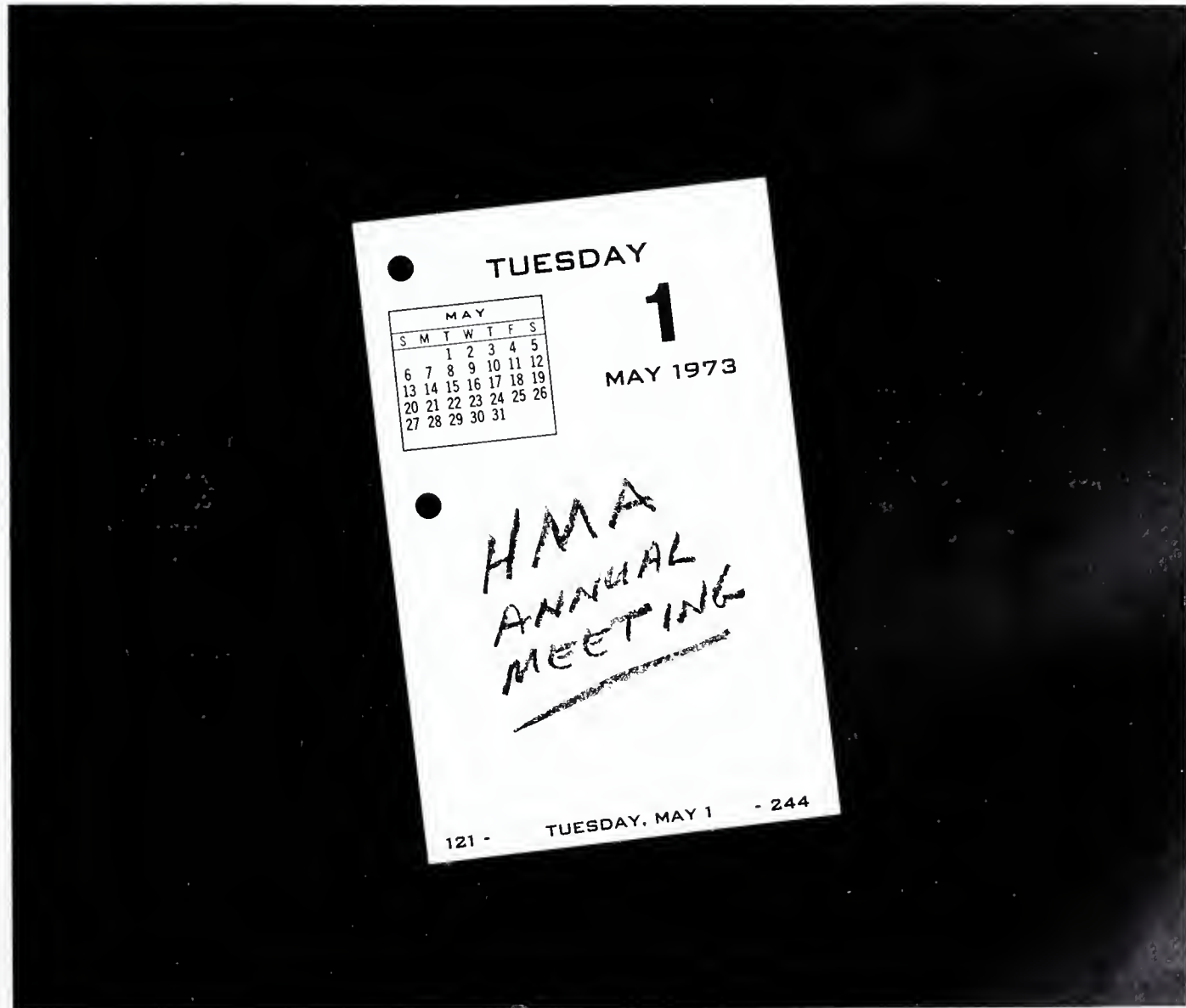
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The number of drowning incidents has remained stable over the last decade, but "near-drownings" have risen sharply.

An Analysis of Drowning Incidents on Oahu, 1960-1970

BENTON CHUN,* MICHAEL M. OKIHIRO, M.D., and RALPH W. HALE, M.D., Honolulu

Because our island state has a favorable year-around climate, the ocean has always been a popular resource for recreation as well as livelihood for the people. Today, the interest in surfing, skin-diving, SCUBA-diving, fishing, and boating is everywhere evident and increasing. The number of tourists visiting our beaches is increasing annually, as is the resident population. These and other factors have increased the frequency of aquatic accidents in Hawaii.

THE HAWAII Medical Association Water Safety Committee has been charged with the responsibility of looking into the medical aspects of water safety for several years. The Committee found that statistical data as to how, why, and where people drown was not readily available. Therefore, it was felt that a review of factors which lead to these unfortunate deaths was necessary before any recommendations could be made about the problem areas.

METHOD OF STUDY

The study was limited to the island of Oahu. Three major sources of information were utilized: First, we reviewed the records of the Medical Examiner's Office of the City and County of Honolulu, where all drownings from Oahu are recorded. The circumstances surrounding each death are recorded as well as can be determined.

* Summer scholarship student supported by Straub Medical Research Institute.
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Autopsies are performed on all drowning victims and blood alcohol levels are determined on all teenage or older victims. The second major source of information was the records of the Rescue Squad of the Fire Department of the City and County of Honolulu. All distress calls due to aquatic accidents made to this department were reviewed and tabulated. Third, the records of the lifeguards of the Department of Parks and Recreation of the City and County of Honolulu were reviewed.

The study covered a period of 11 years between 1960-70.

RESULTS

Death by drowning came to 347 persons during this time period (Table 1), with an average of 32.5 drownings per year. Except for the year 1967, when 53 drownings occurred, the number of drownings have remained fairly constant during each year of this study.

TABLE 1.—Drownings on Oahu, 1960-1970.

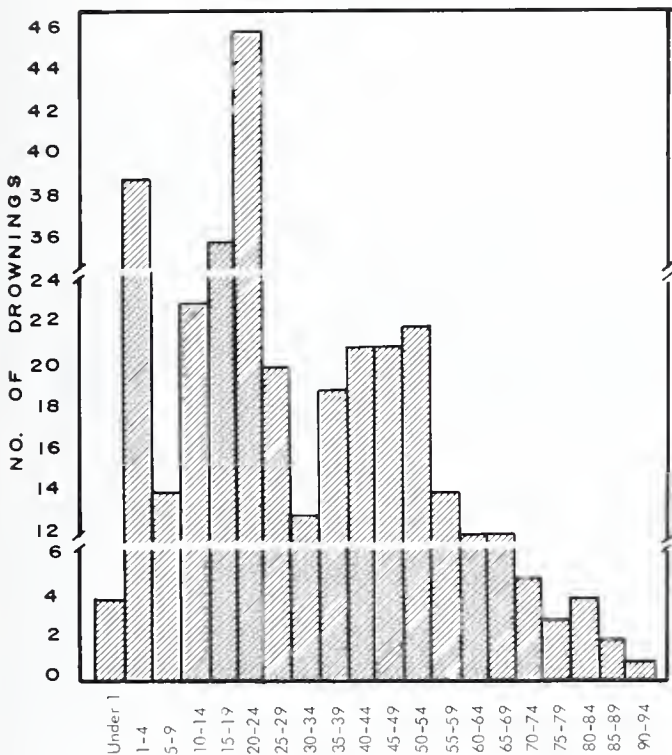
YEAR	ACCIDENTAL	SUICIDAL	HOMICIDAL	UNKNOWN	TOTAL
1960	18	2	0	0	20
1961	29	3	0	0	32
1962	20	1	0	0	21
1963	31	1	0	0	32
1964	22	1	0	0	23
1965	28	2	5	1	36
1966	28	2	0	0	30
1967	51	2	0	0	53
1968	26	5	0	0	31
1969	33	2	0	1	36
1970	31	0	0	2	33
TOTAL	317	21	5	4	347

The majority (317 or 91% of drownings were accidental. Since suicidal and homicidal drownings make up only a small percentage of the total, the remainder of this paper will deal primarily with accidental drownings.

When drownings are tabulated according to age groups, it is evident that the majority of these deaths occur in the first three decades of life (Fig. 1). The incidence of drowning decreases after age 25, remaining relatively constant until age 55 when it decreases progressively.

FIG. 1.—Accidental drownings—by age, 1960-1970.

ACCIDENTAL DROWNING - BY AGE
1960 - 1970



The majority of drownings occurred as outdoor accidents. The three most common activities which lead to drowning were simple falling into the water, swimming and wading (Fig. 2). Surfing, skin-diving and SCUBA-diving followed in importance. There appeared to be no major focal areas on Oahu where most of these drownings occurred, the deaths being scattered quite generally along all the shores of the island (Fig. 3).

An interesting finding was that 75 or 22% of the drowning victims had alcohol detectable in their blood streams. Of these, 62 had blood alcohol levels of more than 0.5 mg%. Another significant finding was that 16 or 4.6% of the drowning victims had histories of epilepsy.

During the same period, 1960-70, a total of 667 distress calls from "near drownings" were recorded by the Rescue Squad alone (Table 2). The number of distress calls have been gradually increasing during the period of this study and

FIG. 2.—Types of outdoor drownings, 1960-1970.

TYPES OF OUTDOOR DROWNINGS
1960 - 1970

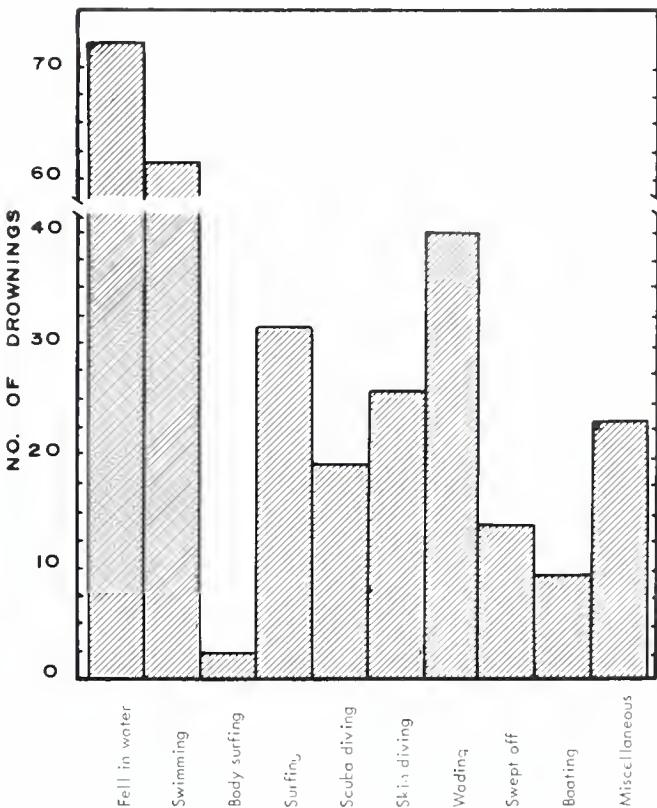


TABLE 2.—Number of "near drownings."

YEAR	RESCUE SQUAD	LIFEGUARDS
1960	26	
1961	31	
1962	42	
1963	42	
1964	43	
1965	54	
1966	61	
1967	61	
1968	100	286
1969	119	477
1970	97	403
	667	

were invariably from swimmers and surfers. Unfortunately, the records of the Department of Parks and Recreation are only available for the last 3 years (1968-70) (Fig. 4). Contrary to the findings for actual drownings, the North Shore area had a disproportionate number of distress calls as compared to the other parts of Oahu.

DISCUSSION

Our initial thought that the number of drownings had been increasing over the years because of the increasing popularity of aquatic activities



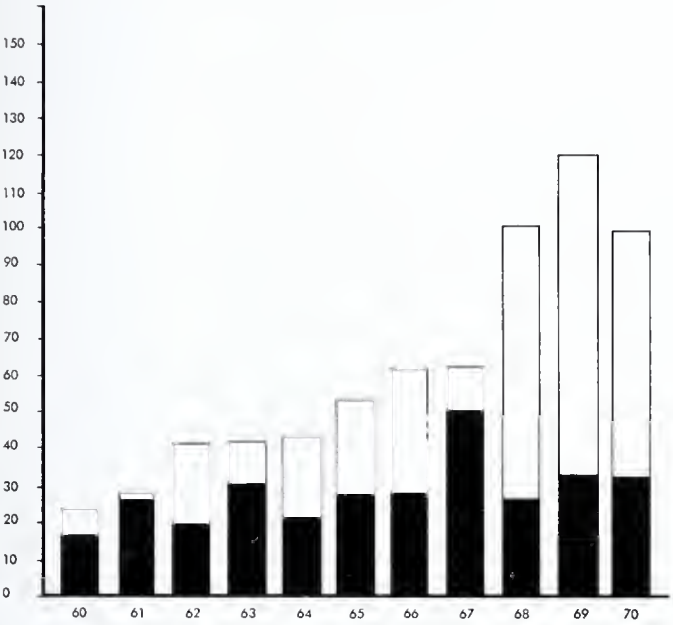
FIG. 3.—Drownings by location, 1960-1970.



FIG. 4.—Near drownings by location, 1968-1970.

and the continually increasing population of visitors and residents, has proved to be unfounded. However, the number of "near drownings" has shown a steady increase during the period of study (Fig. 5). Perhaps the fact that the number of deaths has not been increasing is an indication of the effectiveness of our rescue people.

FIG. 5.—Number of drownings (Black) compared to near drownings (white), 1960-1970.



All drownings are preventable and all drownings are tragedies. The fact that most drownings occur in the first three decades of life seems all the more wasteful. In the first decade of life, the majority of drownings (75%) were in children less than five years old. Very few children at this age have learned to swim; the implication is that these tragedies occurred when supervision was lax. This is particularly true for owners of private swimming pools.

Youths between the ages of 5 and 25 probably spend more time in the water than do any other age group. It may be assumed that most children by this age are capable of swimming, but apparently this is not true. An interesting sidelight along this line is the fact that one-half the drownings

in the 20-24 age group were military personnel. Whether or not these young men from out-of-state were poor swimmers or simply ignorant of the dangers of local Hawaiian waters is unknown.

Among the teenage drowning victims about one-half were surfing fatalists and one-fourth were swimming fatalities. The alluring challenge that the big surf offers is attested to by the fact that the majority of rescues were made in the surfing areas of Makapuu, Sandy Beach and the North Shore.

The information that one out of five drowning victims had measurable blood alcohol levels was surprising. While some of these victims were simply people who fell into the water while drunk, there were many others who obviously had been drinking before taking part in the aquatic activity which caused their drowning. The implication seems to be that alcohol does not mix with large bodies of water.

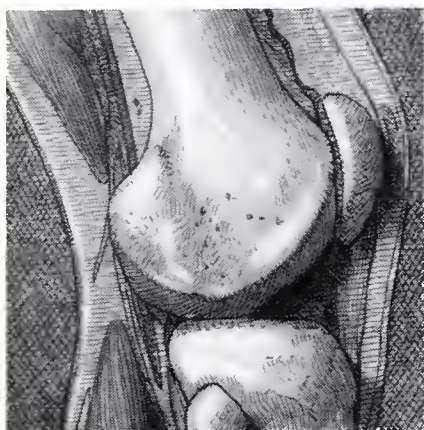
Finally, a word about the drownings in epileptics. To have a seizure while in water is a double tragedy. Certainly no epileptic in poor control should attempt to swim, surf, or dive. On the other hand, for the majority of epileptics who are well controlled with medication, it would seem safe to let them swim if they have been seizure-free for more than a year. The importance of their continuing their medication cannot be over-emphasized.

SUMMARY

A study of aquatic accidents on Oahu between 1960 and 1970 revealed 347 drownings and at least 667 "near drownings." While the annual number of drowning deaths has remained fairly constant, the number of distress calls from "near drownings" has shown a steady rise during the period of this study. The majority of drownings were accidental outdoor drownings. Most of these deaths occurred in the first three decades of life. Of all drowning victims, 22% had measurable blood levels of alcohol and 4.6% had a history of epilepsy.

HERE

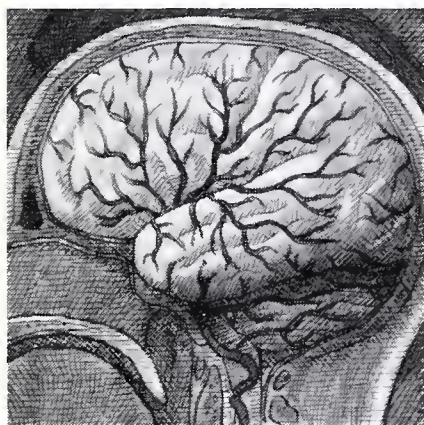
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The President's Page

As your president, I feel it is essential for the medical profession to be ready to assume leadership roles in cooperatively meeting the various crucial problems facing the State in the field of medical care delivery.

One of the most pressing problems has been the high cost of the Medicaid Program to the State and the very low rate of reimbursement for medical care services rendered to D.S.S. patients.

A joint cooperative effort now underway by HMA and HMSA hopefully will result in more efficient utilization of medical services by DSS clientele, a contained and predictable cost to DSS, and more reasonable fees for medical services rendered to DSS patients which should put these patients on a truly equal basis with private patients so they will no longer be "second class" medical citizens. The HMSA will underwrite the contract to serve DSS patients and will assume all financial risks. The HMA, through its peer and utilization review mechanisms, will review nonroutine hospital and ambulatory care rendered, and have the final say on appropriateness and quality of care. If cost savings can be realized in the overall program, major portions will be applied to raising physician's fees to reasonable levels. This is an opportunity to show the government that private medicine and carriers can provide programs involving the State with effective, efficient delivery of quality services to the benefit of both government and private sectors of medicine, and patients.

A second direction we are exploring is the Early Periodic Screening Program for DSS children. We are investigating the feasibility of performing this mandated service through the children's own physicians, providing follow-up and thus a "medical home" for the children rather than the fragmented attention which could result from more centralized sporadic screening. This effort requires close coordination with HMSA and DSS and would obviously be to the benefit of all children involved.

The Emergency Medical Program is still very active, the neighbor islands are being surveyed as to what exists and what is needed. Various alternatives are being explored in order to determine the best means for providing emergency services on each island. Training continues and equipment is being ordered.

Great amounts of time are being spent in legislature with particular emphasis in areas of substance abuse, dispensing of drugs, physician-support manpower, medical school, emergency medical system, malpractice and workmen's compensation.

I'm happy to report the HMA is moving in many directions. Its members providing thoughtful leadership in matters involving many aspects of medical care delivery to Hawaii's people.

If you aren't already involved, and want to have a voice in the future of medicine, come in and get your feet wet.

William E. Leonard, MD

Editorials

The Changing Role of Gastrosocopy In Surgery

The loyalty of surgeons to the "tools of their trade" is fickle. New instruments come and go. They are replaced by newer and improved versions or are discarded, as the test of time erodes the expectations envisioned by their designers.

Occasionally a nearly forgotten technique is reborn and engenders a new wave of enthusiasm. The perfection of fiberoptic lens systems by the Japanese has produced such a reincarnation in the flexible gastroscope.

Gastrosocopy was discarded by surgeons over two decades ago because it failed to contribute significantly to the diagnosis and management of gastric disease. Radiologic examination was much more accurate, and remained the cornerstone of gastric diagnosis. Only a handful of brave and dedicated internists continued to blindly thrust the older Schindler and similar gastroscopes down the unwilling gullets of long-suffering patients. Not only was the passage of the instrument blind, but many areas of the stomach remained hidden from view once the instrument was safely surrounded by gastric mucosa.

Thus by default of the surgical fraternity, our gastroenterologist colleagues became the natural heirs to the new fiberoptic flexible instruments. Through their efforts, fiberoptic esophagogastrosocopy has arrived as a primary diagnostic tool, and refinements in the techniques of biopsy and photography have made possible a much more precise approach to gastroesophageal enigmata.

Since the management of so many conditions involving the esophagus, stomach, and duodenum eventually requires the services of the surgeon, it would behoove the surgical profession to take a more active interest in this approach to these problems. The rewards in terms of the decision as to whether or not to operate, and the planning of appropriate operative procedures, are extremely gratifying. If the surgeon himself has participated in these decisions, he is in a much better position to pursue the proper course. A few examples should suffice to illustrate these points.

UPPER GASTROINTESTINAL BLEEDING

This is a prime indication for fiberoptic esophagogastrosocopy. Bleeding varices can be identified precisely. With the flexible instruments, the fundus and cardia of the stomach can be seen easily, and varices, ulcerations, Mallory-Weiss tears, etc., often identified. Hemorrhagic gastritis, a common affliction which usually defies diagnosis by roentgenographic methods, can be readily seen. Superficial ulcerations, or large ulcers filled with clot, may be visible. If the esophagus and stomach show no evidence of hemorrhage by endosocopy, the bleeding point can be searched for more distally at operation with confidence. Occasionally, a bleeding duodenal ulcer can be seen gastroscopically.

REFLUX ESOPHAGITIS AND HIATUS HERNIA

Current opinion as to operative indications for the repair of sliding esophageal hiatus hernias is heavily influenced by the presence or absence of reflux esophagitis. Fiberoptic esophagosocopy is a reliable and safe method of demonstrating this condition. Furthermore, the size and appearance of hiatus hernias can be evaluated and unsuspected ulcerations sometimes seen.

GASTRIC ULCERS

Ulcerating lesions of the stomach have been an enigma to surgeons for many years. While roentgenography has proven extremely valuable in identifying their existence, their true nature has continued to prove puzzling in many instances. Some respected surgeons have urged surgical removal of all ulcerating lesions of the stomach because of the existence of unsuspected malignant lesions in a few. On the other hand, many acute gastric ulcers have been observed to heal completely and permanently under proper medical management. While x-ray evidence of this phenomenon is often accurate, still a few lesions appear to be healed roentgenographically, but are seen to recur, sometimes because of an underlying

malignant nature. Gastroscopy and gastric biopsy can often confirm the benign or malignant nature of such ulcerating lesions, and serial examinations can accurately document their progress.

MARGINAL ULCERS

Marginal or stomal ulcerations at anastomotic sites, either in the jejunum or duodenum, are often problematical to the radiologist. Both areas are easily and distinctly visible to the gastroscopist, allowing accurate evaluation as to possible ulcerations. Furthermore, both afferent and efferent loops of a gastrojejunostomy lend themselves to inspection.

NEOPLASIA

The nature of neoplastic lesions of the stomach can often be determined preoperatively by gas-

troscopic means, and operability sometimes decided. Certain benign lesions such as polyps, leiomyomata, aberrant tissue, etc., can frequently be identified.

In summary, the modern flexible fiberoptic instruments have changed the place of diagnostic endoscopy of the esophagus, stomach, and duodenum in the armamentarium of the surgeon. It is further apparent that this aspect of diagnostic surgery (and it is a surgical procedure!) should no longer be delegated solely to our medical colleagues. Surgical training programs should incorporate adequate instruction in the use of these valuable instruments.

FREDERICK B. WARSHAUER, M.D.
Chief, General Surgery Service
Queen's Medical Center
Honolulu

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HLA

AMA News in Brief



The Council on Medical Education and the Council on Medical Service are reviewing their committee structures and responsibilities, as requested by the AMA House of Delegates at the 1972 Clinical Convention. The Council on Medical Service has already eliminated 14 positions from its six standing committees, a 27% reduction in membership. The House urged the two councils "to reassess the need for their standing committees."

More than 4,500 physicians registered with the AMA Physician Placement Service during 1972. During the same period more than 3,100 openings were reported to the placement service. New York, California and Florida, in that order, were the states most often preferred for practice locations.

Economic controls should be temporary, minimal and non-discriminatory, the AMA said in a statement to the Senate Banking Committee. The committee is considering legislation to extend the Economic Stabilization Act for one year. The AMA said it had objected to the "highly discriminatory treatment" of health care providers under Phases 1 and 2, and that discrimination was heightened under Phase 3 when mandatory controls were suspended for most sectors of the economy but were continued for health care providers. The price index shows that physicians' fees have not been a major inflationary factor during the stabilization program, the AMA pointed out.

Public dissatisfaction with medical care is not "deep or deepening," a Columbia U. economics professor finds. Writing in January issue of *The Pharos*, journal of the national medical fraternity Alpha Omega Alpha, Eli Ginzberg, Ph.D., said medical care is "about as good or as bad, probably a little better, than educational services, upon which we spend about the same amount. . . . I do not see any major crisis looming ahead." Speaking of health maintenance organizations, he said: "In the face of a record that shows conspicuously slow and unsteady growth, it is difficult to understand the newfound enthusiasm for HMOs, most of which are still confined to paper."

Of the 1,159 jails responding to a nationwide survey by the AMA, 65.5% said they have only first aid facilities and 16.7% said they have no facilities. In 38% of the jails physicians are available on a scheduled basis, but 31% of the jails said they have no physicians available. The survey, conducted in cooperation with American Bar Assn., will be used to guide the AMA and state and county medical societies in developing programs to improve health services in the nation's jails.

The Senate has passed legislation to delay the effective date of new rules of evidence for federal courts. The rules, developed by the Committee of the Judicial Conference of the U.S., would abolish the physician-patient privilege in federal court proceedings, except in cases pertaining to psychotherapy. The AMA has expressed its concern over the proposed rules to both houses of Congress.

College freshmen are showing increased interest in medical and health careers, the American Council on Education reports. ACE surveys show 5.5% of 1972 freshmen said their probable career was physician or dentist, compared to 4.4% in 1971 and 3.7% in 1968. Nursing careers were indicated by 4.7%, compared to 4.1% in 1971 and 2.7% in 1968. Other health professions were preferred by 7.3% in 1972, compared to 4.1% in 1968.

A school health project, proposed by AMA's Committee on Health Care of the Poor and funded by an AMA-ERF grant, will screen children in two East Harlem schools in New York City. The pilot project will be operated by the Mt. Sinai Hospital School of Medicine as a model program for the correction of defects that would interfere with learning.

The AMA has resigned from the World Medical Assn. after weighing AMA's financial commitment against WMA accomplishments. The AMA has been the largest financial contributor among the 60 national medical associations of the WMA. Last year the AMA paid \$72,840 in dues. The AMA participated in the founding of WMA in 1947.

Hawaii Academy of Family Physicians



. . . The Return of the Medical Apprentice

The curriculum committee of the UH School of Medicine held a "retreat" all day Saturday, February 24. At the end of the day, what with general fatigue and all, many of the participants did indeed retreat, by sneaking out the back of Mabel Smyth auditorium, leaving mainly faculty, and some students. It must be said, however, that the very fine catered Japanese box lunch attracted a host of the community's AP's (Attending Physicians), most of whom are too busy staving off their demanding patients of a Saturday morning; and these participated actively and vocally in the early afternoon group workshops. The a-borning, unsteady on weak pins, degree-granting medical school students and faculty shrugged off any state legislature-generated pessimism, and welcomed the input of "Town." Dean Rogers and Dr. McDermott, curriculum chairman, made everyone feel at ease and welcome.

Unfortunately, the family physician—a category of AP that has come to include the pediatrician and the internist as well as the old generalist under the loose heading of primary physicians—began to feel more and more left out, of the curriculum particularly, as the long afternoon wore on.

Frank Tabrah, M.D., ex-Kohala GP of many years service, actually trained as a pediatrician before coming to Hawaii, is now on the UHMS faculty as a coordinator of sorts, attempting to design family practice into the 4-phase curriculum. He introduced the concept of a 5-weeks family practice preceptorship for students in Phase IV (4th year to you!). And much discussion was had.

It became obvious soon enough that the students were interested in making the best use of their time, of which they have not enough, considering the vast extent of modern medicine put before them to learn. A 5-weeks period of being locked in to a particular AP could be a most negative experience, if the AP is (a) too busy to take the time to teach, (b) expecting the student(s) merely to observe, (c) likely to relegate the student(s) to do urinalyses only (and stay out of his way!), or (d) a "dumb" practitioner. It could be just as bad a waste of time if that

particular student was totally uninterested in that aspect of medicine by then.

If the intent of the curriculum committee is to design "exposure" into the 4-phase school, then perhaps every student should spend no more than a week or two, and every year throughout the four phases, subjecting themselves to as wide a range of AP's in their offices as can be drummed into the corps.

The faculty was obviously more interested in standards of quality, and the means of assessing the quality of this out-reach beyond their hallowed halls. So were the students also!

How does one recruit preceptors? Volunteers, yes, and it may be difficult to get enough of them. The suggestion that they be paid a quarter of their regular income, presumably to tie them into a quarter's worth of teaching, met with a lot of arguments. One could see problems materialize from the smoke of professorial ideas and concepts.

How can the faculty be assured of the mandatory high standard of education expected of an outback preceptor? More difficulties. More problems. Granted, of course, that in time, the good, the bad and the ugly will be culled and dealt with, but in the meanwhile some students will get a good education and some may be seriously short-changed.

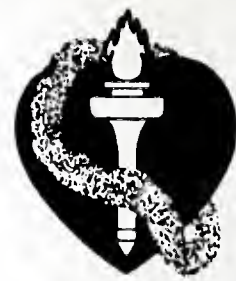
The family physicians of Hawaii need to make themselves aware of these many problems coming up at our fledgeling medical school. Many of the current one and two year classes are basically interested in family practice, but by the time they get their degrees their exposure will be mostly to the departmentalized specialized aspects of medicine—such is the tradition of the medical faculty—and their interest in the essential work of the real primary physician—the generalist—will have waned.

So far, there is no "Department of Family Practice" in the faculty.

The family physician who takes on the teaching of medical students also himself becomes a learner. The relationship between a preceptor and his apprentice can be an extremely rewarding experience for both. Their patients, now and in the future, will be the better for it.

J. I. FREDERICK REPPUN, M.D.

Hawaii Heart Association



IS EXERCISE TESTING REALLY WORTHWHILE?

During a recent phone call, Dr. Anna Maria Brault, in her role as a minion of the HMSA, commented that "treadmill stress testing [in the diagnosis of coronary artery disease] has sort of become the social thing to do." And to some extent she is correct. While formalized exercise testing as a diagnostic tool actually began with Dr. Arthur Master in 1929, the controversies that it generated and the high incidence of false negatives prevented the "Master 2-step" from becoming a routine test in the assessment of heart disease.

This is in contrast to the current vogue of enthusiasm for graded exercise testing. Two years ago, maximum-stress testing was unheard of in Honolulu. Now, some 13 centers in Hawaii currently offer routine treadmill stress testing on request of the patient's private physician. Nationally, over 300 articles a year deal with exercise testing for the evaluation of heart disease. The questions are: (1) why the enthusiasm? and (2) why can't similar results be obtained in a more mundane fashion?

The heart, in spite of its complexity, is simply a pump. It has no other function. The exercise test, by utilizing large muscle groups in order to increase cardiac output, evaluates this function. The exercise electrocardiogram determines the adequacy of myocardial blood flow at the time of the investigation.

Our next goal is to relate the test data to a known standard. Work is defined as force times distance. Walking a person of known weight over a specified distance requires a calculatable number of foot pounds of work, oxygen consumption, efficiency, and with a little further investigation, even cardiac output. For heart work, we can substitute blood pressure for force, and heart rate times time for distance. Both of these parameters are readily obtainable during an exercise test. From these, we can estimate myocardial work and myocardial oxygen consumption. Finally, by serial testing, using a reproducible protocol, we can precisely determine whether myocardial dynamics have improved or deteriorated in the interim.

The current interest in exercise testing is now apparent—that the indications for graded exercise

testing are no longer only for the diagnosis of arteriosclerotic heart disease, but myriad. Finally, we can see that exercise testing can provide unique reproducible and easily obtainable information that compliments, rather than competes, for the physician's attention in the diagnosis and treatment of cardiovascular disease.

JACK H. SCAFF, JR., M.D.

PENICILLIN PROPHYLAXIS A Practical Reference

In the use of Penicillin the objective must be crystal clear. Dosages, types of Penicillin, route of administration, and duration of therapy must be tailored precisely to achieve the therapeutic goal. To prevent recurrence of rheumatic fever, Benzathine Penicillin by the intramuscular route has shown a ten-fold reduction of streptococcal infection as compared to the oral route. Prophylactic therapy should be continued indefinitely in patients with proven rheumatic fever and those classified as in the high risk groups (mothers of young children, school teachers, medical and allied medical personnel, low social economic groups, those in institutions, etc.). Benzathine Penicillin G 1.2 million units per month is preferred over oral Penicillin G 250,000 units B. I. D. Erythromycin 250 mg. B. I. D. is suggested for Penicillin-sensitive individuals. Sulfadiazine 1 gm. per day (.5 gm. in children below 60 pounds is equally effective as oral penicillin). All oral penicillin should be taken on an empty stomach either ½ hour before meals or at least 1 hour after meals to assure proper absorption.

To eradicate an acute streptococcal infection, oral therapy with a larger daily dose must continue for at least 10 days with a follow-up culture to be certain that eradication has been complete. One dose of IM penicillin G in the Benzathine form 1.2 million units is considered superior to the oral penicillin G 250,000 units QID for 10 days. This course of therapy must be repeated if more strep are found in the repeat cultures. Only the beta hemolytic group A streptococci are associated with the initial and recurrent attacks of rheumatic fever. Next to Penicillin G, Erythromycin and Lincocin may be used to eradicate strep-

continued page 123

Several weeks ago I was vexed considerably to learn of HR 10, a bill designed to control drug abuse in Hawaii, carrying into law significant restrictions on the dispensing of potentially habituating drugs by physicians. I have testified recently on behalf of an amendment to lift these restrictions.

But it is the implication that is even more troublesome to me than the fact that this restrictive legislation was passed.

In the past, we physicians have had little quarrel with paramedical people—we have welcomed them to the health care team. Now things threaten to get out of hand; the tail is trying to wag the dog.

In December 1971, I wrote a column for *House Physician Reporter*, a medical newspaper that is distributed to house officers across the country, on this subject. I called it "The Partitioning of the Patient." What was true in 1971 is even more real today. Editor Alfred Roller has granted permission to republish it here.

THE PARTITIONING OF THE PATIENT

I may be suffering from "paranoid vibes," but I have the creepy feeling that the paramedical people are conspiring (independently and without formal organization) to penetrate and erode the structure of American medical practice.

Let me review the circumstances that have set my "vibes" to oscillating. About a year ago a smooth, toothy, Brooks Brothers pop-out with a gold sliderule lapel ornament managed to charm and weasel his way past my nurse and insinuate himself into my office. At first I mistook him for a patient; his concerned expression was the unmistakable hallmark of the prolapsed hemorrhoid sufferer. But my clinical instinct was incorrect; he allowed as how he was worried about my "time."

In short order, it became apparent that he was an advance man for a computer company that was doing a market survey of practitioners—studying the feasibility of computer-derived histories in their "busy practices."

He spoke at length of patient dialogue with a terribly bright, programmed electronic monster that could suck out an elaborate history, ponder the possibilities in the flash of a millisecond, and fire the print-out into my in-basket with a scintil-

lating differential diagnosis in descending order of probability.

I bade him a hasty exit. In the time he had taken to crank out his well-oiled spiel, I could have taken the history faster and better than any computer. Also I could have shifted my language (from pidgin to Ph.D. to sign) to accommodate to the linguistic needs of my patient. Also I could have watched the eyes, face, hands, color, posture, diaphoresis, noted pauses, smiles, surprises, and grimaces. I could have switched gears and moved to some neutral subject to put him at ease, or I could have bored in harder to clinch a point. I could also have talked about the weather, the Mets, or the news from Belfast—something non-medical, to take off the heat or change the pace.

There is room in medicine for computer art. There is no better way to store information for instant retrieval or transmission. Slick computers are being created that can scan and interpret EKGs, EEGs, x-rays, isotope scans, etc., to provide valuable data.

But I will never yield that precious ten to twenty minutes of eyeball-to-eyeball contact with my patient, in the ancient and honorable ritual of history taking. (Also, if I am in a terrible hurry, I can do my physical examination while completing details of the history.)

The next incident occurred one day when I was sitting at O'Hare awaiting a flight back to Hawaii. I was drowsing over a copy of *Archives*, and I happened to notice a large, young woman seated across from me staring intently at the journal and (most disconcertingly) at me. She was built along the lines of a Green Bay line-backer. After a few minutes (to my utter horror) she arose and approached me! She asked, in a loud voice, "Are you a doctor?" I found myself muttering something like "Yes, I-I-I guess I am."

"Well, I just want you to know that I think all doctors are mechanistic idiots, carbon copies turned out on a medical assembly line—with no feeling for patients as people!"

I was so amazed at this outburst that I was speechless. But the voice was unrelenting.

"I am a clinical psychologist, and I think MDs know so little about people as human beings that *you should leave psychologic aspects of disease to us*. Of course, psychiatrists are so few and so expensive that they really don't count."

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Hawaii Medical Association

HAWAII MEDICAL JOURNAL

SPECIAL COUNCIL MEETING

January 26, 1973, 5:00 P.M.
Mabel Smyth Conference Room

PRESENT

The meeting was called to order by President William E. Iaconetti. Present were Drs. Herbert Y. H. Chinn, Thomas P. Frissell, R. Varian Sloan, Grover H. Batten, George H. Mills, George Goto, J. I. F. Reppun, Douglas B. Bell II, Albert C. K. Chun-Hoon, Ann B. Catts, Henry Oyama, Winfred Y. Lee, Sakae Uehara, Peter Kim, William W. L. Dang, John Withers, DeWitt Smith, and Elisabeth K. Anderson.

SPECIAL PRESENTATION

The sole purpose of the meeting was to discuss revisions to the EMCRO grant being submitted to the National Center. The grant, EMCRO-Phase II, was revised and will be submitted under the sponsorship of HMA. RMPH has agreed to withdraw the grant previously submitted (Hawaii Health Data Utility). Dr. Alexander Anderson has agreed to serve as a consultant to the project. Dr. James Appel has indicated his willingness to assist the Association in searching for a new project director.

ACTION:

It was voted to approve and submit the EMCRO-Phase II grant application and proceed provided a satisfactory project director can be obtained. There was one opposing vote.

HEALTH MANPOWER

Dr. Elisabeth Anderson reported that the Health Manpower Committee has reviewed the proposed legislation relating to Mobile Intensive Care Technicians. The committee does not favor certification of paramedical assistants by statute and asked permission to draw up legislation which will permit the physician to delegate certain tasks under the Medical Practice Act. Such legislation will eliminate the need for separate legislation each time a new category of physician-support personnel is developed and will allow rules and regulations regarding certification to be established under the Board of Medical Examiners.

ACTION:

It was voted to permit the Health Manpower Committee to work with legal counsel to develop legislation.

ADJOURNMENT

The meeting adjourned at 7:00 p.m.

R. VARIAN SLOAN, M.D.
Secretary

COUNCIL MEETING

February 16, 1973 — 5:30 P.M.
Mabel Smyth Lanai

CALL TO ORDER

The meeting was called to order by President William E. Iaconetti. Present were: Drs. Herbert Chinn, Thomas Frissell, R. Varian Sloan, Grover Batten, George H. Mills,

George Goto, J. I. F. Reppun, Douglas Bell II, Albert Chun-Hoon, Ann B. Catts, Winfred Lee, Sakae Uehara, Peter Kim, William Dang, John Withers, Calvin Sia, Masato Hasegawa, Rowlin Lichter, Elisabeth Anderson and Mr. Rice.

MINUTES

The minutes of the January 5 and January 26, 1973 Council meetings were approved as circulated.

REPORT OF THE TREASURER AND FINANCE COMMITTEE

The Council reviewed the financial report for the month of December. The following actions were taken:

ACTION:

(1) The financial statement for December 1972 was approved subject to audit.

(2) Formally adopted policy to state that "all travel items requested by committees, commissions, and others must be individually considered as to their merit by the HMA Executive Committee."

(3) Directed that committee chairmen, commissioners, and others clearly justify their reasons for budget requests.

(4) Council Agenda Items: Approved the continuance of the A. H. Robins Award; postponed action on an interim session; deferred action on funds for newspaper ads and a conference on the future of health care.

(5) Approved the recommendation of the Finance Committee regarding the allocation of committee funds for 1973.

(6) Voted to approve a motion requesting the Finance Committee to present their recommendations for a definite aggressive investment program including the use of the PBF fund and an increase in dues, if considered necessary. Recommendations to be submitted to the Council at its next meeting in preparation for the House of Delegates meeting in May.

REPORTS OF THE COMMISSIONS AND COMMITTEES

A. *Medical Education and Peer Review*: The Peer Review Committee presented a position statement on acupuncture for Council action.

ACTION:

It was voted to adopt a position on acupuncture to read: "Acupuncture is an experimental procedure attempted in the treatment of disease in the State of Hawaii and falls within the practice of medicine. Acupuncture should be performed lawfully only by, or under the control of, a Hawaii licensed physician. All acupuncture cases should be reportable semi-annually to a review committee to be composed of three members of the faculty of the School of Medicine and three members of the Hawaii Medical Association, with its chairman being elected by the committee. This review committee shall report and make recommendations annually to the Legislature." There were three opposing votes.

B. *Internal Affairs*: A progress report on annual meeting activities was presented. It was suggested that President Iaconetti write to the Cancer Society expressing

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New Members

HAWAII MEDICAL JOURNAL



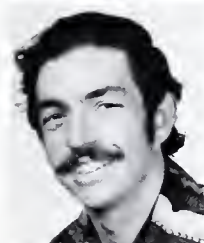
Patrick Aiu, M.D.
Wilcox Hospital
Lihue, Kauai 96766
OBSTETRICS-GYNECOLOGY



Robert C. Clingan, M.D.
1133 Punchbowl Street
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DERMATOLOGY



Paul Taylor Condit, M.D.
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INTERNAL MEDICINE



Ronald Hattis, M.D.
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GENERAL PRACTICE



Kenneth Robert Hughes, M.D.
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INTERNAL MEDICINE &
CARDIOLOGY



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Chansoo Kim, M.D.
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PHYSICAL MEDICINE



Benjamin Lambiotte, M.D.
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EMERGENCY MEDICINE



Franklin See Hook Young, M.D.
Schofield Pediatric Clinic
Schofield Barracks, Hawaii
PEDIATRICS

Book Reviews

WINFRED Y. LEE, M.D.

HAWAII
MEDICAL
JOURNAL

Pathophysiology and Differential Diagnosis In Cardiovascular Disease

By Charles K. Friedberg, M.D., and Ephraim Donoso, M.D., \$15.00, Grune & Stratton, 1971.

THIS SHORT BOOK consists of a symposium originally published in "Progress in Cardiovascular Diseases." In the first half of the book, a symptom or sign is selected for each chapter, and its nature and mechanism of production discussed, as well as the differential diagnosis of patients with that symptom or sign. Subjects include cardiac pain, dyspnea, edema, syncope, cyanosis, and systolic and diastolic murmurs. Later chapters consider the differential diagnosis of broader categories such as congenital heart disease, cardiomyopathies and left ventricular outflow obstruction.

The result is generally a useful and readable book. It is cardiology viewed from a vantage point a little different from the usual. There is much good clinical information and the pathophysiology is well presented. Inevitably, some authors and their subjects appear more comfortable in this unified format than others, but the result is generally successful. This book should be useful for the clinician who wishes to review the pathophysiology of cardiac symptoms and signs and few will read a chapter without finding one or two useful clinical pointers.

This book is a timely reminder of the great loss to cardiology in the recent passing of Dr. Friedberg.

DAVID J. FERGUSSON, M.D.

Synopsis of Pathology 8th Ed.

By W. A. D. Anderson and Thomas M. Scotti, 1,076 pp., \$13.95, C. V. Mosby, 1972.

THIS IS TRULY a new edition (not merely a glorified reprinting). Although the plan of the text remains unaltered, much has been rewritten and updated, along with the addition of a number of excellent electron-micrographs.

Approximately one-third is given to the general principles of the reaction of tissues to injury, and the remainder of the special pathology of the various organ systems. Despite its small format, it is profusely illustrated, with well over 400 black and white illustrations. The quality of the "gross" pictures is uniformly excellent. Many of the photomicrographs are equally good, but unfortunately not all. Some have too low a magnification to illustrate clearly the features described in the legends.

The index is accurately and carefully prepared. But particularly in regard to eponyms, it is sometimes lacking. Unlike so many textbooks, the index is free of that irritating practice of referring the searcher to another synonym for the page number (eg. "cystic fibrosis . . . see mucoviscidosis"). In this text, the appropriate page is given under every heading.

Most of the sections are preceded by concise and informative reviews of normal structure and function before presenting the pathologic lesion; — again a 'bonus' in such a relatively small book.

The cost is refreshingly modest in these inflationary days. It remains then only to say to whom should this volume be recommended. Certainly, every pathologist and almost any physician, generalist or specialist, as well as residents will find it a valuable reference to have at hand. It is too inclusive for students.

W. STANLEY HARTROFT, M.D., Ph.D.

Clinical Psychology in Industrial Organization—Progress in Clinical Psychology, Vol. IX

By Lawrence E. Abt, and Bernard F. Riess, 193 pp., \$12.50, Grune and Stratton, 1971.

THE NINTH volume in this excellent series addresses itself to the evaluation and systematic understanding of clinical psychology within industrial organization. Beginning with an article on the development of human resources within the American industrial complex, the editors offer the reader a sampler of articles on personnel turnover and job satisfaction; management training in various European countries; the clinical and industrial psychologist as an administrator; industrial psychology in an iron curtain country (Poland); and the psychodynamics and psychopathology of work. The final article provides an interesting overview of the potentials and pitfalls of the use of sensitivity training in industry. Appropriate introductory and integrative material is supplied for each article.

JAMES M. DENNY, Ph.D.

Psychoeducational Evaluation of the Preschool Child

By E. Jedrysek, Z. Klapper, L. Pope and J. Wortis, 91 pp., \$8.95, Grune & Stratton, Inc., 1972.

TO MOST STUDENTS of childhood development the name Elsie Haeussermann does not strike the same familiar chord as do those of Anna Freud or Jean Piaget. For an increasing number, however, this German-born social worker, whose early interest in cerebral palsied children led her to later efforts in America to develop a method for observing subtle areas of inadequate functioning in apparently normal children, is held in equal esteem.

The techniques offered in this manual may have a primary difficulty built into them in the form of their deceptive simplicity. The "cookbook" presentation may provide the same provocative lure for teachers and others which has caused the behaviorist approach to therapy to be so frequently misused by well-meaning but theoretically naive educators. If it is utilized appropriately, however, the Haeussermann approach should serve to provide valuable insight and information about the learning abilities and disabilities of the preschool child—which is, after all, precisely all it purports to do.

JOHN R. BOND, Ph.D.

Clinical Disorders of Iron Metabolism 2nd Ed.

By V. Fairbanks, J. Fahey and E. Beustler, 406 pp., \$25.00, Grune & Stratton, Inc., 1971.

AN EXCELLENT, well written, relatively compact book on the history, basic metabolism, clinical symptomatology, allied syndromes, treatment and overload disorders of iron. Information is current and clearly written and documented by over 1700 references. Much basic information is correlated with the clinical aspects. This greatly expanded 2nd edition is highly recommended to any one interested in iron, including the student, house officer, practitioner and hematologist.

ROBERT T. S. JIM, M.D.

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County Society News

HAWAII MEDICAL JOURNAL

Maui

The January 23 meeting was held at *The Landing* in Kahului. Members present: Drs. Achong, Aquilizan, Azman, Briley, Dietrich, Fu, Haling, Iaconetti, Kepler, McCollum, McDonald, Moran, Morris, Peat, Romero, Sowers, Uehara, Underwood and Withers.

Minutes of the November 21 meeting were approved with the amendment that: "budget next year should include expense of an additional delegate or alternate to the House of Delegates meetings, plus the president once a month to HMA Council meetings," instead of 5 or 6 times a year.

OLD BUSINESS:

1. Board of Governors meeting held December 27, 1972: At this meeting it was decided to forward a letter to the Editor of the Lahaina Sun regarding a recent column comment by Bob Kelsey. A reply has been received from Don Graydon. It was moved, seconded and approved that no further action be taken on this matter.
2. Board of Governors meeting held January 23, 1973: Approval of the application of William Angus MacDonald, D.O., to the Maui County Medical Society. This will be submitted to the membership January 23, 1973.
3. Drs. Iaconetti and Uehara reported on the results of the recent Council meetings:
 - a. There will be a special Council meeting January 26, 1973 regarding EMCRO.
 - b. Mention was made of the planned emergency medical services which will become available to Maui.
 - c. The HMA-Formosa trip is in much demand and anyone interested should promptly subscribe for it.
 - d. Guidelines from HEW regarding PSRO (Bennett amendment) not yet available.
 - e. A cooperative effort with HMSA to provide welfare care at less cost. This may result in increased reimbursement to the physician.
 - f. Dr. A. Chun-Hoon working with the Department of Labor to establish a program for rehabilitation at the Rehabilitation Center.
 - g. Act 10. At a public hearing an amendment will be proposed to permit physicians to dispense certain classes of drugs.
 - h. It was moved, seconded, and approved to send a physician to the next legislative assembly.
 - i. The financial report indicates a 1972 balance of \$3,753.24. However, no billing has been received from Club 19.

NEW BUSINESS:

1. The application of William Angus MacDonald, D.O., for membership was unanimously approved.
2. It was recommended that 1973 committee appointments be made.
3. There was an active discussion of what activity the County Medical Society should undertake in terms of public programs. It was moved, seconded, and approved that Dr. Withers work with the Hospital committee on this matter. It was mentioned that County Medical topics such as Act 10, EMCRO, Rehabilitation program, etc. could be added to the program.
4. There was an active discussion of the Christmas Party and previous cocktail party. It was concluded that a form will be sent to each member requesting an expression of their wish for 1973.

5. There was a discussion of increasing Auxiliary activity with the Society. It was mentioned that a good speaker should increase attendance.
6. It was moved, seconded and approved that dues and assessments remain the same as this last year.
7. Dr. Fu was appointed as an Ad Hoc Committee to make recommendation regarding Judy Kitagawa's salary.

The February 20, 1973 Maui County Medical Society meeting was held at the *Heinz Restaurant*.

Members present: Doctors Aquilizan, Briley, Burden, Dietrich, Fu, Haling, Izumi, James, Kepler, LaFon, MacDonald, McDonald, Moran, Morris, Moser, Patterson, Rockett, Romero, Rossberg, Sowers, Stewart, Tofukuji, Uehara and Withers.

Minutes of the previous meeting held January 23, 1973 were approved as written upon motion made and seconded.

OLD BUSINESS:

1. Community Relations Committee
 - a. There was commendation to Dr. Jose Romero for the work he is performing in this committee.
 - b. There was a general discussion about a proposed talk by Dr. Morris on the subject of malpractice at a forthcoming radio conference. It was moved, seconded and disapproved.
 - c. Dr. Romero was instructed to obtain, if feasible, feed-back information on the success of this radio program.
2. 1973 Christmas Party. Dr. Dietrich reported that at this stage there has been an incomplete return of the inquiry forms.
3. There was a report of the recent Council meeting activities in Honolulu.
 - a. Acupuncture. This was reported and discussed. It was felt by this Society that acupuncture should be performed by qualified professionals. No formal action was taken.
 - b. It was stated that the next annual HMA meeting has been scheduled for May 1 to 4th, 1973 at the Ilikai.
 - c. There was a discussion of the report of the past and present problems regarding budget matters. It was mentioned that we currently have a deficit HMA budget. There is also a need to establish investment and building funds. This may be reflected in forthcoming increased dues.
 - d. EMS. It was discussed that with a cut in federal expenditure, that the Emergency Medical Services program funded through Regional Medical Program may be discontinued.

NEW BUSINESS:

1. Nomination for State officers. It was moved, seconded and approved to suggest the following names:
President-Elect, Secretary, Treasurer—Doctors Winfred Lee, Varian Sloan, Grover Batten and Bill Dang.
AMA Delegate—Dr. George Mills.
Alternate AMA Delegate—Dr. Herbert Chinn.
It was moved, seconded and approved to nominate Dr. Sakae Uehara for the Maui Councillor.
There was also a general discussion of the need for involving younger Maui County Society members in State activities and State offices.

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Life in These Parts

When neurologist **Ray Choek** started to place electrodes for a diagnostic EEG on a 65-year-old Chinese patient with chronic headaches, the patient protested, "Hey Doc, I've already had acupuncture on my head for these headaches and it didn't do a thing." (As told by **David Pang**.)

Sleepy Kona, Hawaii, is very alive in the news of late. . . . In November, two young mainlanders were hospitalized "in very bad shape" from ingesting castor beans. Kona physician **James Mitchell** who treated the pair described the symptoms as violent vomiting, and diarrhea, and declared that there was no antidote for castor bean poisoning. . . . Fortunately the pair must have recovered for they signed themselves out of Kona Hospital. Then in December, it was reported that the vintage 1939 Kona Hospital was in danger of being decertified by HEW. . . . The hue and the cry was raised for rate increases and for funds for a new building scheduled for construction starting February. Whether decertified or not, along came the London Flu bug to Kona in January and Jim Mitchell reported that "he personally treated 1,000 cases." A hospital spokesman carefully reported that 13 persons were hospitalized with the flu. With the London Flu still rampaging the area, several human bones were uncovered on a jobsite in Keopuka, South Kona. Jim Mitchell studied the bones and reported, "The remains are those of a human being, but age and sex could not be determined because of the deteriorated condition . . . and they had been in the ground from 50 to 200 years. . . ." In February, Kona physicians decried the new state law prohibiting physicians from dispensing "certain dangerous drugs," and allowing only licensed pharmacists to dispense these drugs. Jim Mitchell confirmed that he too was being hampered by the new law and that he had testified at a Board of Health hearing in Honolulu asking for repeal of the law. . . . "This law was pushed through by the pharmaceutical lobby so that they would get all the business," he said. . . .

All the islands were hit by the recent drought, but Kauai district health officer, **Richard Cardines** could see the silver lining even while the farmers thirsted. . . . "There is a good side to the whole thing. . . . All our normal beach pollution indicators are much lower than usual. . . . This season has been fantastic. . . . It's really improved our beach areas. . . . With rain, all sorts of things wash down the streams into the ocean. . . . Of course, I'm not saying a drought is good. . . . You have to weigh these things."

We were intrigued by this rather mysterious announcement: "Dr. **Clyde Ishii** continues to maintain office hours in Lihue as follows: Monday through Friday 9 a.m.-12 noon and 1-4 p.m. Saturday and Sunday 9 a.m.-12 noon."

Into the cornerstone of the new 152 bed Straub Hospital went the miracles of 1973 medicine. **Bill Myers** collected a plastic breast implant, a bottle of birth control pills, the latest model intrauterine device, a plastic ear drainage tube, a set of cinecardiography film, a Cryophoke and a hypodermic syringe used by **George Straub**. Pediatrician **Bill Myers** was not sure what to include for the Pediatrics Dept. . . . "Gadget wise, pediatrics hasn't changed much over the years. About the only thing I can think of is an audiometer. . . ." **Clagett Beek**, who chaired the cornerstone committee, solemnly placed the box and its contents in the hospital

cornerstone while the Rev. Abraham Akaka delivered the invocation at the dedication ceremonies all the while flicking water from a calabash on the front doors with a ti leaf. . . .

Hawaii's own, our internationally renown neurosurgeon **Ralph Cloward** who originated the anterior approach for cervical disc surgery had the following dialogue one day in January with a policeman who walked into his office: "I am here to arrest your machine." "Cool it, man. . . . You're not going to arrest my machine until I see my attorney." But the Theramatic Mark VII diathermy machine made by the Dynapower Systems Corp. of Santa Monica, Calif., was indeed under arrest on a warrant of arrest filed by U.S. Attorney Bob Fukuda. The diathermy, the only one of its kind here, was a gift from the manufacturer, a Dennis Kendall, whom Ralph had operated on and which Ralph had been using for the past 4 to 5 years without any ill effects. Kendall had told Ralph that the machine was so good that owners of race horses used it for pulled muscles and that the steeds could run after several hours of treatment. . . . (Certainly, what's good enough for horses must be good enough for humans.) "I don't know what this is really about or why they're singling me out," complained Ralph. . . .

When we read how an outstanding local ophthalmologist and the reputable Stewart's Pharmacies had settled out of court for \$140,000 because a patient continued to refill and use a steroid eye drops preparation for 2½ years instead of the prescribed 2 weeks and developed cataracts, we wonder at the intelligence of patients who continue to use medication without returning for followup care and we worry about how many of our non-refill prescriptions are being refilled . . . without our knowledge. . . .

"It's a runaway expense and it's frightening," State Medicaid administrator Robert Millar was commenting on the \$37 million in State and Federal funds being spent in Hawaii this fiscal year for welfare medical assistance. But the budget request for 1973-74 fiscal year is a cool \$47 million. Since the \$37 million includes \$12 to \$13 million for institutional care of some 1,300 elderly, Bob says, "One of the basic reasons for this tremendous cost is that the kids won't keep their parents at home. . . . They put pressure on physicians to run the parents into a nursing home. . . . It's gotten worse in recent years. . . . One of the big reasons for the change in attitude is the change in the State law which formerly said children are responsible for their parents."

Mort Berk is a gourmet cook who has won many a cooking contest in the past for his exotic recipes. Mort enjoys cooking, and since his wife Carol does not, it's a comfortable working arrangement. As a cardiologist and one of the founders of the Hawaii Heart Association, Mort is an advocate of low cholesterol, low fat foods and his low cholesterol recipes for baked chicken vegetable, beef stew, fresh mushroom salad and stuffed steak Honolulu were listed in the Heart Sunday (February 25) issue of the Advertiser. Mort says, "It's as interesting as it is tragic. The people who worry about their diets are 40 to 50 years old. That's all wrong. The people who should be careful are the children. There's no way to reverse the damage once it's done."

The fascinating ETV program, "Human Sexuality" has been running for 15 weeks since January 23, every Tuesday and Thursday evenings from 9:30 p.m. This is a TV first for the nation and features **Milton Diamond**, professor of anatomy and reproductive biology at the

UH School of Medicine, Milt says, "We know that there's bound to be some criticism of the course—the subject is an extremely controversial one (to say the least). But if the shows serve to stimulate communication between people, I think it's great—whether they agree with me or not."

Act 10 of the 1972 Legislature which became effective January 1 prohibits physicians, dentists, and vets from dispensing controlled drugs and allows only licensed pharmacists to dispense. The Department of Health revealed that it has been holding off establishing rules and regulations for Act 10 hoping that the law will be amended this session. **Cesar De Jesus**, chairman of the Board of Health, feels that "The law hampers the practice of physicians, especially in outlying areas," and the Board passed a resolution recommending department officials push for some revision of the law this session. . . .

Donald Char, director of the UH Student Health Service, disagrees with the Ralph Nader report that the "morning after" pill increases the risk of cancer in women with a family history of breast and genital cancer. Don declares that his health service will continue to offer coeds the pill. There are requests for the pill two or three times a week. . . .

The Hilo Medical Corp. won a lease on a 89,380 square foot parcel of State land near Hilo Hospital in an auction on December 27, 1971 and had planned to construct a \$450,000 building for 10 physicians. The annual lease rental is \$5,000. The lease requires a performance bond equal to twice the lease rental and a \$150,000 improvement bond, neither of which has been done. The State thereby served notice of default and the group with president **Alan Takase** has 60 days in which to remedy the breach of default.

"You can buy anything at an auction these days, even a new body." So went the feature article on the Hawaii School for Girls benefit auction Hoopla '73 held at the Hilton Hawaiian Village on March 1st. It was referring to the unique item offered for auction viz any single cosmetic operation performed by a prominent Honolulu plastic surgeon, who wished to remain anonymous. One of our daughters attends HSG so we must thank **Lieber Fernandez** for his generous donation. . . .

The former USS *John R. Perry*, a destroyer escort, was transferred to the Indonesian Navy at Pearl Harbor. When she left for Jakarta on March 3, she was loaded with \$15 to \$20 thousand of free medical supplies donated by Hawaii firms and hospitals and collected through the efforts of eye man **John Holmes** who has been to Indonesia four times as a medical consultant for programs including the WHO. Mrs. Bill Moore of the HMA medical auxiliary had two tons of supplies stacked in her garage, the Queen's purchasing agent donated outdated equipment and supplies, the Queen's central supply donated bandages, gloves, catheters, the Hawaii Medical Library donated duplicate journals and medical books. Gaspro donated 15,000 disposable syringes, Bill Loomis of the Board of Health chipped in a couple of dental chairs and Amfac and Gasco donated vitamins. John describing Indonesia says, "It's a sick nation. . . . There are 10,000 preschool-age children going blind every year. . . . The problem is a lack of Vitamin A."

With the tightening of the State Budget, Med School Dean, **Terry Rogers**, assured the State Senate Committee on Higher Education that faculty and staff will not be expanded until budget problems have been clarified and \$3 million in Federal grants was forthcoming. Terry had earlier presented a budget request for \$6.6 million to run the school for the next biennium (meaning 1973-1975). With \$3.2 million in federal funds forthcoming, the total budget with the 3rd and 4th years added will be \$9.8 million for the biennium. The operating budget for 1973-74 is expected to be \$4.7 million with the State contributing \$2.9 million, but for 1974-75 the State's share is projected to increase to \$3.6 million. Terry blandly predicts that the total operating costs should level off at about \$14 million when it reaches "full bloom" in about six years. Terry feels that a program

to recruit minority students can get as much as \$1 million in Federal aid for the next biennium and such a program could be aimed primarily at Hawaiian, part-Hawaiian, Filipino, Samoan and Trust Territory youth. All of this involves only the operating costs while capital investments for the biennium will be another \$4 million of which the Federal government picks up \$3.2 million. Terry feels that his estimates of federal funds is conservative and in line with Nixon's tight budget. . . . (We can hope with fingers crossed.)

Tom Thorson's Corner

Doctor says to his patient: "Now, would you like another computer diagnosis on your diagnosis?"

Tom says, "You gotta screw your friends because your enemies will never do business with you."

Claude Caver's Repertoire

"Do you know what POW stands for?" "Pollack on Welfare."

"How many calories in a penis?" "None if you don't eat it."

A sailor was reported as being a sex maniac. . . . The ship psychiatrist who was asked to evaluate the sailor asked, "When did you last have sexual intercourse?" "About 1955 sir." The psychiatrist was puzzled, "But that's a long time ago." "No sir, it is now only 2100 hours sir."

Sportsmen

We finally got the results of the Path Associates Golf Tournament held on November 25 and 26 at the Makaha West Course in which 16 foursomes played. Some shot well and others had their excuses. . . . **Frank Fukuunaga** (who has not thrown a club recently) was at his finest with a two day net of 142 and **Don Maruyama** whose game gels somehow for any tournament was 2nd with a net 143. Perennial winner **Ed Izawa** was 3rd with a 144 and **Quint Uy** tied for 4th with a net 146. Tied at 5th place with net's 147 were **James Navin**, **Chew Mun Lam** and **Paul Cooke**. **Tom Kobara** was in 6th place with a 148. Those with good excuses and who had a vigorous workout were **Fred Lam, Jr.** with 177, **Art Salcedo** with 172 and **Timothy Wee** with 171. **Sam Berkman**, president of Bio Science Enterprises, hosted the evening cocktails. **Paul Tamura** who sponsored the tournament worried so over the starting times and the foursomes that his game went to pot. . . . Paul swears it will be his last tournament, but we feel he can be persuaded, gently of course. . . . Every participant went home with a prize ranging from the 1st place TV set to clock radios, electric heating trays, etc., etc. This reminds us of how the HMA Golf Tournaments used to be and should be viz . . . prizes all the way down to last place. . . .

We learned that five physicians including two women are taking Karate twice weekly at the Japan International Karate Center. **Millard Seto** is a brown belter, and both **Cesar De Jesus** and **Virgil Jobe** blue belters. **Ellis Devereaux** and **Betty Soo** are the two women Karate experts. . . . So watch your step fellows. . . .

Hideki Namiki, Queen's pathologist, is a judo, sumo and karate expert. He was also a sportscaster until recently for the Sumo tournaments on KZOO radio. . . .

Golf, we understand, is an expensive sport in Japan. Japanese tourists are flocking to our local courses with their surplus dollars. . . . Recently two tourists showed up at the Ala Wai Municipal course and asked the starter in faltering English, "How much?" The starter replied, "Two fifty each." Without batting an eyelash, one of the golfers started to peel off five hundred dollars for their green fees. . . .

continued page 116

With painful clarity and escalating volume, the voice went on, "Give me your name and I'll send you my reprints!" There seemed no way out, so thinking quickly I whipped out my ball point and scribbled down the name of a fellow I had met in Washington once, who was a world renowned malacologist. (He spends his life wading up and down African rivers gathering schistosomal-ridden mollusks). I am sure the writings of my wild psychologist-Amazon provided a few hours of perplexity and diversion to his otherwise well-ordered life. I was permitted to escape.

The next strange happening occurred a few weeks later in San Francisco. I had been invited to give a paper on drug interactions before a state convention of hospital pharmacists. The program sounded innocent enough, a rather interesting, diverse array of subjects. So, I was totally unprepared for the first speaker. He was an articulate young man who started softly but crescendoed with an intemperate indictment of the medical profession!

What he said, in essence, was that physicians no longer knew as much about drugs as hospital pharmacists. Therefore, they should concern themselves with diagnosis and *leave treatment to the new, bright breed of hospital pharmacists!* I was relieved when this astonishing announcement was received with tepid applause from his peers.

At lunchtime, a leather-lunged assemblyman who represented a few parched, sand-blown counties south of Tehachapi spoke above the tinkle and clank. He apparently was concerned with medical politics, and his speech was prolix and dreary—until the very end. At this time he made the outrageous, out-of-context pronouncement that physicians are known to be unwilling or incapable of policing the incompetent within their ranks, and, therefore, he felt *this was a matter for legislators!*

This half-truth followed by a half-baked non-sequitur was the final straw! At this point I could no longer wrestle with the rubber chicken or negotiate the cold peas, so I excused myself and raced up to my room. I tore up my first four pages of rebuttal, but finally settled on something just slightly less intemperate.

When my turn came, I told the five hundred assembled hospital pharmacists and nurses that I was getting weary and angry with the increasing intrusion of paramedical people. "Everyone wants a piece of the patient; they want to carve him up like a Thanksgiving turkey!"

I am fed up with the people pushing physicians' assistants too. We are told that they will "save us time." Time for what? More time on the links; more time to see more patients; more time to read

(come on now!); more time for what? If every physician were to analyze his daily time allocation, he could find many hours that are otherwise "wasted" that he could employ "profitably"—for any pursuit of his heart's desire.

The concept of the PA is not original. Come to the office of any well-organized practitioner, and you will see a PA operating at maximum efficiency. She is called an "office nurse," and she does all the things that do not require the talents of a physician.

Of course we need doctors in the outback, and this may be the role of the PA. But one of the key problems in medicine is the business of "clinical judgment," and that requires a clinician. You cannot expect a person of lesser background and training to have it.

If and when widespread use of PAs *operating independently* becomes a reality, we must be prepared for inferior medicine. If you say "inferior medicine is better than no medicine at all," perhaps you are correct, but will (or should) medical consumers settle for that? In any situation where PAs are employed in peripheral areas, they must have rapid access to a clinician by audio-visual communication to help with difficult decisions. One of the problems we face is assessment of severity of illness. At times it requires considerable skill to sniff out serious illness in the patient who does not present with classic signs and symptoms. It happens every day.

I will concede a great deal of the furor being generated by the paramedical people can be blamed on the physician. Our process of education has been so preoccupied with teaching the nuts and bolts of hard science that we have had little time to expose our students to the arts, the humanities, the emotional aspects of patients care.

And finally, education of medical students in clinical pharmacology has been neglected in most of our medical schools for several decades. At the very critical time when new drugs of exceeding potency and capability have come into clinical medicine, our students are being graduated with little knowledge of the practical aspects of drug therapy. And whenever there is a vacuum, someone is always ready to fill the void.

However, the solution to these problems is not to "dissect" the patient. The solution is that we must shore up our educational defects and graduate physicians who are complete clinicians.

One of the great fascinations to all practitioners is dealing with patients as people. We enjoy the communication—the contact—the give and take. As I mentioned earlier, I can take a medical history better and faster than a computer, and I can also watch the response of the patient—the subtle things which are so immeasurably important in

continued page 112

Physician's Report of Services Rendered

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4 ADULT FEMALE

7 JUN

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YEAR

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YEAR

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NAME OF CARRIER

DATE

7/4/72

PATIENT'S COMPLAINT

DATE OF ONSET

DIAGNOSIS

7/10/72

7/4

Patient

Surgical Procedure (Use Standard Code)

NAME OF HOSPITAL

Suture of laceration

7/4

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DOCTOR'S SIGNATURE DATE



Hawaii Medical Service Association

establishing diagnosis. And it will be a lot cheaper for the patient.

Also I relish the challenge of assembling the data from history, personally performed physical examination, carefully considered laboratory tests, and then attempting to put it all together to make a reasonable diagnosis. And, of course, the greatest thrill to any clinician is treating the patient and watching his response.

I think it is time we physicians served notice that we intend to cling to our prerogatives with great tenacity. We will clean our house and police our own. The umbrella of medicine is vast and we welcome all who can help us get our patient well. But we intend to remain captain of the medical team.

Book Reviews continued from 106

A Primer of Electrocardiography, 6th Ed.

By G. E. Burch and T. Winsor, 280 pp., \$7.75, Lea and Febiger, 1972.

THIS BOOK is not for the cardiologist. Rather it is for the physician in other fields who wants to have a basic knowledge of electrocardiography. Its excellent language, clarity, and succinctness have made it popular since the first edition appeared in 1945, and it has been translated into French, Spanish, Czechoslovakian, Italian, Serbo-

Croat, Greek, and Japanese. Other advantages are the price (\$7.75) and the length (280 pages); it can be read on the installment plan at bedtime in one or two weeks.

C. S. JUDD, JR., M.D.

Emergency Room Care

Edited by Wilbur W. Oaks, M.D., Stanley Spitzer, M.D., and John H. Moyer, M.D., 300 pp., \$18.50, Grune & Stratton, 1972.

THIS CONCISE and informative book covers a wide range of subjects from dissecting aneurysms to septic abortions. Each subject, from etiology to treatment, is well handled, albeit briefly.

The section on cardiovascular emergencies is somewhat deficient in its discussion on some of the more common peripheral vascular crises. Little or no mention is made of acute arterial or massive venous thromboses, distal arterial and pulmonary artery embolisms, and arterial trauma. The paragraph on leaking abdominal aortic aneurysms does not even discuss the important aspect of recognition and the immediate steps necessary to initiate successful therapy. This lack is surprising since Hahnenmann now has one of the more vigorous vascular surgical departments in the city.

Since the emergency room is frequently where intravenous therapy is started, a short treatise on the techniques of subclavian and internal jugular vein puncture would be helpful. A catheter correctly placed in one of the central veins is certainly a necessary skill for the emerging emergentologist.

This volume is, of course, more than the Merck Manual. But it does suffer from a lack of specific details in its paragraphs on treatment and, thus cannot serve as a reference book to the emergency room physician. But even though the book was intended largely as a guideline, specific treatment outlines will make it even more valuable. In all, it was enjoyable to peruse.

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2. Utilization Review: Chairman Uehara discussed the ground-rules that are being followed for Medicare and Medicaid cases. There will be a combined County and Maui Memorial Hospital Utilization Review Committees meeting with the Maui Memorial Hospital Medical Staff on March 29, 1973.
3. PL 92-603 (HR 1). There was a discussion of the current status of the Hawaii Foundation for Medical Care and PSRO.

Kauai

The Kauai County Medical Society met at the *Sheraton Kauai*, on March 5, 1973.

Members present: Doctors C. Funaki, Y. Miyashiro, T. Magoun, B. Wade, W. Goodhue, V. Waite, K. Chuang, P. Kim, R. Berry, L. McCarthy, and W. McLaughlin.

Dr. Berry commented on the poor attendance at the meeting, noting that the Society had voted in favor of quarterly meetings with a view towards improving attendance, but that this did not seem to help. Though no quorum was present, it was felt best to go ahead with the agenda and canvas the absent membership by circulation of the minutes.

The application of Dr. Hoffman was reviewed by the officers and presented to the membership for approval. Dr. Hoffman's application was accepted unanimously.

Dr. Kim reported on the activities of the HMA Council. He noted that HMSA has proposed to the legislature that HMSA underwrite Title 19 or the Medicaid Program, providing they get the cooperation of the Hawaii Medical Association. The HMA Council has approved of HMSA's proposal which provides that any savings from the program provided by Medical Review performed by the HMA may result in an increase in the relative value schedule for the Title 19 program. The Medical Review will include the preapproval of elective admissions to the hospital. Dr. Kim also noted that the Hawaii Foundation for Medical Care will undertake a statewide PSRO program for peer review of utilization which is essential in order to avoid governmental control in the future. Finally, Dr. Kim concluded that the EMCRO project is moving into Phase II wherein the project will survey the outcome of care by follow up of patients.

Doctors Claremont and Miyashiro were reaffirmed as delegates from the Kauai County Medical Society to the Hawaii Medical Association with Dr. Robert Emrick as alternate delegate.

A motion was carried to send a letter to the Kauai legislators thanking them for their support in retaining the Kauai Community College LPN nursing program.

A motion was carried to send a letter from the County Medical Society to the governor with copies to the Kauai legislators asking for his support and endorsement of an associate degree nursing program at the Kauai Community College. The motion also urged the individual members to write the governor along the same lines.

An announcement was made concerning an HMA leadership training seminar to be held in Honolulu in March.

Honolulu

The January 9, 1973 meeting was called to order by President William Dang. Approximately 75 members and guests were present.

Minutes of the December 5, 1972 membership meeting were approved as read by Dr. Albert Chun-Hoon.

Program and topic for discussion was "Straub Clinic—Start of the Second Fifty Years." Discussing the new hospital, new innovations in the clinical area, and application of computer technology to the business were Dr. Fugate Carty, Chairman, Hospital Planning; Dr. Rob-

ert Nordyke, Co-chairman, Health Screening Center; and Mr. Thomas Battisto, Executive Administrator.

To keep the membership up-to-date on Society business Dr. Dang reported that recent changes in the HMA By-laws allows Honolulu County one councillor for each 100 members or fraction thereof and since we now have over 700 members we are entitled to eight councillors. Councillors from Honolulu county include the four officers, immediate past president, Dr. Ann Catts, and Dr. Henry Oyama. Dr. Dang also reported that at the last Council meeting of HMA action was taken on a joint program in which HMSA will underwrite DSS medicaid program. Hawaii Medical Association will provide the peer review mechanism.

The February 6, 1973 meeting was called to order by President William Dang. The minutes of the January 9, 1973 membership meeting were approved as read by Dr. Moore.

New members introduced were Drs. Vincent Aoki, Robert Clingan, Paul Condit, Gordon Ing, Benjamin Lambiotte, Chansoo Kim, Lawrence Lockett, Kunio Miyazawa, Thomas Owens, and Franklin Young.

Dr. William Bolman described a new program and the availability of funds for disadvantaged candidates for the medical school. He stated they would welcome suggestions from the membership of any student who might make a suitable candidate.

The program "A Comprehensive Report and Update on What Every Physician Should Know About VD" was presented by a panel consisting of Dr. Milton Traver, practicing physician; Dr. Ned Weibenga, Chief, Epidemiology Branch, Department of Health; and Mr. Woody Bonny, Advisor on VD, U.S. Public Health Service. The history, objectives and problems of a multifaceted screening program was discussed.

The membership observed a moment of silence in memory of Dr. Archie Chun-Ming who died on January 26, 1973.



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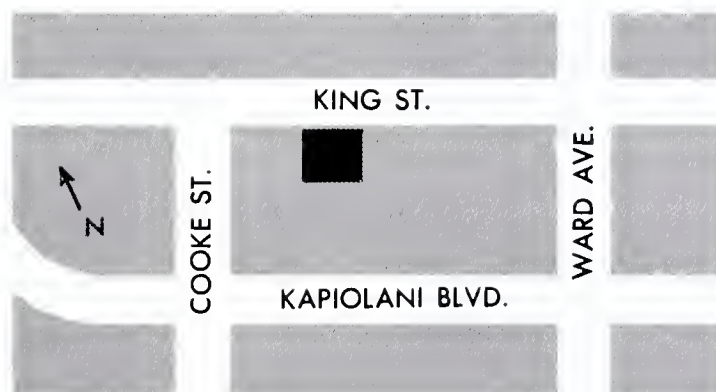
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Golf Jokes

A fellow joined a trio at an exclusive country club bar. When the conversation turned to golf, he asked, "May I join you for a round of golf tomorrow?" The trio was agreeable and he said, "I'll be there at 8 sharp or exactly 2 minutes late." Next morning, he showed up precisely at 8 and he played even par. His new friends were very impressed and invited him to play the following week. As he left, he again promised, "I'll be there at 8 sharp or exactly 2 minutes late." He showed up precisely on time and played this time with left handed clubs and again shot even par. . . . The golfers were doubly surprised, but mystified. One of them ventured to ask, "You play equally well either handed?" "That's easy to explain. . . . When my wife sleeps on her right side, I play right handed. When she sleeps on her left side, I play left handed." "But what happens when she sleeps face up?" "Ah, that's when I'm 2 minutes late." (Heard by **Frank Fukunaga**.)

Aetna Medicare Review

(Back at Whaler's Broiler)

We were happy to be back at Whaler's Broiler and its oysters on the half shell. **Ted Tseu** informed Medicare director **Bob Grathwahl**, "I want you to know my wife complained last month because I didn't have my oysters. She could tell the difference." As orders for oysters were being taken, **Bill Dang** ordered only a half dozen rather than his usual dozen and **Henry Oyama** looked at Bill sympathetically, "Hey, what's wrong?"

Bill reviewed a case of hydradenitis suppurativa of the scrotal sac in which the surgeon removed the left

scrotal sac and transferred the Lt testis to the Rt scrotum. The surgical fee was \$640. Bill had canvassed the urologists who quoted figures ranging from \$15 to \$300. Allergist **Allan Young** commented sympathetically, "Sounds like a real dingaling case."

During a pause in the chart review, Bill discussed the recent Lilihei tax evasion case in which a call girl was paid \$100 for doing typing. **Gordon Liu** quipped, "It's a justified expense since she took it up anytime anything came up."

The perennial argument between chairman **Gabe Ma** and **Lup Pang** regarding abnormal EKG's in medicare patients was resurrected. Lup's contention is that his EKG's are normal though he was in the medicare age category. Gabe had bet a dozen golf balls that Lup's cardiogram would be abnormal. Lup's defense was, "Ycu people don't pay for normal EKG's," whereupon **Bernie Fong** piped in, "I tell you what, after one of these sessions, we'll take your EKG and we'll put you down as having sinus tachycardia." Bernie told the story of a middle aged Chinese bachelor who went to Taiwan and married a rather young girl. He would come in with repeated episodes of non-specific urethritis and even developed PVC's. Since the patient looked so down and out, Bernie thought he would help bolster the fellow's low morale. "You know what your trouble is. . . . You're too active, that's the trouble." With this the patient perked up, and smiled, "No kidding, Doc? Maybe you're right," he said and went away happy and confident. . . .

Bernie, the un-golfer, had a golf joke to tell. . . . This golfer teed off and his ball went into the water and the caddy dutifully retrieved it. On the next tee, he sliced into some thick brush and the caddy again found it after some effort. On the following tee, he sliced into the adjacent woods. . . . The hardworked caddy despaired, "Sir, let's forget that ball." "Hell, no," protested the golfer, "that's my lucky ball."

At this point chairman Gabe Ma recalled Bernie Fong's one time venture onto the golf course, Bernie



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was seen teeing his ball 6 inches in front of the tee markers. "You can't tee off from there." "But it's my 2nd shot" protested Bernie. Gabe later found Bernie teeing his ball on the fairway as well. Bernie's classic defense was, "The primary reason is to keep the course in good shape." Bernie, the un-golfer has a point. . . .

Elected, Honored, Appointed

We congratulate **Bill Dang** for his election as president of the HCMS and we predict it will be a good year, **Bill Moore** became president elect, **Al Chun-Hoon** secretary and **Doug Bell II** treasurer.

In September, the following were conferred FFAFP's (Fellow of the American Academy of Family Physicians) at the annual AAFP convention in New York City. Those honored were **Robert Chung**, **Patrick Cockett**, **Howard Liljestrand**, **Fred Reppun**, **Martin Lichter**, **Henry Dickson** and **H. Q. Pang**. In November, The American Academy of Pediatrics elected **Carl Lehman** and **Brian O'Hara** to fellowships and the Hawaii Radiological Society elected **Ghim Yeoh** president. The Kuakini Hospital board of directors re-elected **Al Shimamura** to the board. In December, the Hawaii Academy of Family Physicians elected **Clifford Druecker** president, **Roscoe Pebley** president-elect, **Doris Jasinski** secretary, **Fred Reppun** treasurer, and **Fred Dodge**, **Rodman Miller** and **Arch Wigle** councilors. Also honored at the December 2 meeting were **K. C. Chock**, **Henry Dickson**, **Fred K. Lam** and **Robert Millard** for practicing more than 50 years.

On the Tong front, the United Chinese Society of Hawaii installed **Bernard Fong** the head Tong man for 1973. On the family front, **Maggie Lim** was elected first vice-president of the Hawaii Planned Parenthood and **George Goto** was elected to their nominating committee. On the international front, our **Richard You** was elected to the U.S. Olympic Committee.

George Ewing was one of six judges in the Carnation Company's annual Healthy Baby Contest. The judges chose a curly haired, chubby 33 month old whose mother when asked what made her daughter so healthy answered, "I don't know. Her favorite pastime is eating dirt. She loves to eat dirt and she eats a lot of it." (Perhaps George can start marketing our healthy Hawaiian dirt . . . what an idea for a health supplement).

On February 17, The Men's Club of Temple Emanuel awarded **Masato Hasegawa** one of its three 1973 Brotherhood Awards. President **Otto Orenstein** said, "His distinguished record not only in pediatrics but in the broader aspects of medicine and delivery of health care shows a concern for his fellow man that has earned him the admiration and affection of all who know him." (And we agree wholeheartedly.)

We were particularly happy for **Dick Ando** to read the Star-Bulletin editorial praising his efforts for the past 6 years as the much harassed chairman of the elected Board of Education. The following are excerpts: "One man who at least labored—even battled—to the utmost of his powers to attain value per dollar invested was Dr. Richard Ando. . . . Dr. Ando's most frequent reward for his efforts at progress was criticism and abuse. As he now settles back to recharge his batteries as one of the board members, but not the chairman, he deserves a round of public thanks."

Reginald Carvalho of Hilo survived 3 heart attacks in a year and had a recent Denton Cooley by-pass procedure in Texas. Reginald was named "Heart of the Year" by the Big Island Heart Association unit. Before surgery, Reginald could not walk more than half a block without pain, but now can push a wheelbarrow around his yard. . . .

Professional Moves

On the premise that old news is still better than no news, we reach back to September for our backlog on

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the migrations of *Homo Sapiens Medicus*. . . . In September, Ob man **John Krieger** moved to Kapiolani Hospital, anesthesiologist **Efren Baria** joined the Medical Anesthesia group at 1374 Nuuanu Ave. and pediatrician **Amelia Jaeang** joined the Phil American Medical Associates at 74 S. Kukui St. and 41-036 Wailea St., Waimanalo. In November, pediatrician **Reynolds Shirai** relocated to the Gold Bond Bldg., eye man **Bruce Ochsner** joined the Honolulu Medical Group, a **Monty Downs** who had been with **Patrick Cockett** in Kapaa joined the Hanalei Clinic and **Charles Koeh** from California became the State's Kalaupapa physician, a position vacant since May 1971. (And is **Ira Hirschy** happy.)

December saw a sudden rash of changes: Ob man **Hamilton Winston**, Derm man **Philip Hellreich** and internist **Howard Keller** all relocated to the Kailua Professional Center at 30 Aulike Street. GP **Daniel Whang** associated with the Medical Arts Clinic, Inc. at 606 Kilani Ave., Wahiawa, GU man **Manas Ghosh** opened at the Professional Bldg. in Hilo, Hawaii, Ob man **Keijiyo Yazawa** associated with **Shigeo Natori** at 2515 Coyne St. and **David Trainer**, a former health officer in LA, became the new district officer for Hawaii.

The new year brought another flurry of moves. Pediatrician **Patrick Reardon** joined the Hilo Medical Group, Inc. and general surgeon **R. G. Johnston** joined the Waimea Medical Center, internist **Vineent Aoki** joined the Internist Clinic at 1441 Kapiolani Blvd., anesthesiologists **Philip Lin** and **Letty Mei Pang Liu** opened their office in Honolulu, **Tom R. Amott** joined the Koloa Dispensary on Kauai and dermatologist **Joseph Hathaway** who had been dabbling in real estate after his retirement from the State joined the Windward Medical Center. February saw our blonde dynamo **Doris Jasinski** opening her office at the University Square Bldg. at 2615 S. King St.

Miscellany

Two "fellows" from Chicago were in Seattle and touring the waterfront. A big fat boat came chug-chugging into port. One asked the other, "What kind of boat is that?" "That's a ferry boat," replied the other. . . . "No kidding, you mean we even have our own navy?" (Tom Thorson's repertoire.)

Definition of arbitration: A friendly settlement in which each side gets what it doesn't want. (Another Tom Thorson contribution.) (Apropos with the teacher strike on. . . .)

"Knock . . . knock. . . ." Who's there? "Wailuku." "Wailuku who?" "Why look whose here." (From *Aku's* program.)

Other Sportsmen

We congratulate **Ed Kagihara** who had a hole-in-one at Waialae on the difficult well-trapped 8th hole on Wednesday, March 28, using a 4 wood. Playing with Ed were **Hideo Oshiro**, "Blu" **Nishigaya**, and **K. J. Luke**.

. . . It was **Don Maruyama** in the foursome behind whose sharp eyes saw the ball go in and who was most ecstatic, never having seen a hole-in-one before. . . .

We once quoted *Yim's Law* which went something like this: "Anyone playing over 5 years and not breaking a 100 is brain damaged." To prove that he is not brain damaged, **Henry Yim** recently shot a sparkling 79 at Mid Pac CC on Saturday, March 31. . . .

We learned that smooth swinging **Ed Matsuoka** won the singles elimination tournament for the Mid Pac Wednesday Club and that **Glenn Kokame** who had a recent slump in his game was fully recovered and in the running for 2nd place. The January trophy winner for the Mid Pac Thursday Club was **Alan Luning** (whose handicap dropped sharply from 17 to 10) and the February trophy winner, **Frank Fukunaga**. . . . We may have broken the magic spell for **Vie Mori** by mentioning that whatever team he played on, always won in the black and white tournaments. . . . Vic was on a losing team for the first time in 3½ years of tournament play. . . .

We learned that **Tom Kobara** who ran the fabulous Pathologist's Tournament at Kuilima a year ago and, who solicited over a thousand dollars worth of prizes, is the new tournament chairman for the annual St. Francis Hospital Tournament. . . . Tom who has a Midas touch makes certain that every player wins something. . . . This makes for real playing incentive. . . .

ANNUAL AMA-ERF BENEFIT AT THE PACIFIC BALLROOM, ILIKAI (*Rambling Notes Therefrom*).

Paid up attendance, 779. . . . A most delightful and entertaining evening. . . . The co-chairladies **Mamie Kimata** and **Berna Yim** were great as mistresses of ceremony. . . . As Mamie puts it: "Our thanks to the husbands of the steering committee members who went with unironed shirts and ate TV dinners for 3 months. . . ." Auxiliary president **Roberta Lee** gave thanks to the unending list of physicians' wives and children who had worked so feverishly. . . . The real credit goes to State AMA-ERF chairwoman **Mae Kagihara** who donated her husband Ed, the talented producer and director of the two hour show, "Red, White and Blue Is Beautiful." . . . Ed had taken a week's vacation to get the show in shape and even tried single-handedly to decorate the stage. . . . The unexotic dinner with the exotic names: "American Eagle Surprise" (Don't look up as it flies in), "Tossed Tumble Weeds," "Tiny Turkey in the Straw with Rockefeller Grits," "Confederate Confetti," "Skip-to-my-Lou with Road Apple Sauce," and "Mississippi Mud and Boston Tea Party." All forgiven as soon as the musical extravaganza started. . . . the brassy Iolani Stage Band, the dancing forms of **Diane Fujikami**, **Debbie Ing**, **Gwendolyn Jim**, **Karen Jones**, **Debbi Kim**, **Diane Yokoyama**, and **Ann Yoshida** coached by choreographer **Lei-Lynne Doo** . . . the singing of **Ella Edwards**, **Nancy Simmons**, **Mary Ann Soeter**, **Winfred Chang**, **Ed Dierdorff**, **Don Jones**, **Jordan Popper**, **Lee Simmons** and **Ann Barbara Ilo Yee** . . . the jazz trumpet solo of **John Bond** . . . the jokes by **John "Hobo" Smith** . . . the hilarious antics of the Floating Ribs: **Bill Handle**, **Ed**

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Kagihara, Robert Lee, and Jerry Tucker. . . . We may never forget their rendition of McDonald's TV commercial, and their Spike Jones' numbers "Cocktails for Two," "Chloe," etc. . . . We will never forget the short and the tall of Don Jones singing next to Barbara Yee, that beautiful rendition of "Georgia" by Ella Edwards and Ed Dierdoff's "San Antonio Rose." We will forever chuckle at the memory of John Smith dressed as Charlie Chaplin's hobo, but with a bra and a douche bag attached to his long-handled umbrella and at his ribald jokes, a few of which we managed to scribble down:

"Speaking of B.O., Don Jones spent a \$1,000 to get rid of his and found that he had no friends anyway. . . ."

"You've heard of the new deodorant 'Gone'. . . . You disappear and everyone wonders where the smell's coming from. . . ."

"They say, 'Drinking is the curse of the working man.' . . . I say 'Work' is the curse of the drinking man."

"I never had premarital sex with my wife. . . . Did you? Friend: 'I don't know. . . . What was her maiden name?'"

"Two friends went to a strip show. . . . The dancer gets down to her panty and bra. . . . One of them covers his eyes and refuses to watch. . . . The stripper pulls down her bra. . . . 'Hey, why aren't you watching the show?' 'I can't look.' 'Why can't you look?' 'My mother told me that if I ever looked at a naked woman, I'd turn to stone. . . . and I feel myself getting hard. . . .'"

Great work by the following: **Bernice Sugiki** in charge of acknowledgments, **Sandra Shin** and **Dolly Watt** who handled the arts and crafts, **Shirley Kam** and **Honey Pavel** in charge of baked goods, **May Kim** and **Carolyn Chee** charged with decorations, **Mrs. Philip McNamee** with the dress contest, **Mrs. Walter Chang** with the finance scrips, **Ruth Goldstein** and **Cornelia May** with leis, **Paula Faulkner** who handled publicity, **Mae Kagihara** and **Aliee Tucker** who were in charge of the pupus, **Jacqueline Jones** who took care of the raffles and donations and **Violet Takushi** and **Jane Uemura** who handled

reservations. . . . Special acknowledgments went to the two Marjie's, **Marj Yoshida** and **Marj Yokoyama** for their help above and beyond the call of duty. . . . 'Twas a most memorable evening for all . . . the group singing . . . the color guards . . . the red, white and blue motif of the banquet hall decorations . . . and above all, **Ed Kagihara's** comic pantomime. . . . Oh, what a night. . . . What a painless way to donate to a good cause. . . .

Physicians Speak Up

And it came to past that **Fred Dodge** spoke thusly re the death penalty: "Especially as a Roman Catholic, I would like to make known that many Catholics are not in favor of the death penalty and feel that it is not in the spirit of the Gospels. . . . The report (re, a booklet 'The Social and Moral Issues Facing The People of Indiana') said capital punishment fails to deter crime, does not protect society and is often imposed with great inequality. . . . 'Even the most wretched and unfortunate human being has a life which must be regarded as inviolable.'"

And **Carl Lehman** spoke against mass fluoridation: "Some individuals have truly been shown to be allergic to fluoride. . . . The most critical time to administer fluoride is during the time of tooth formation. Thus the first year of life may be more important than later and certainly the first ten years of life are the years of tooth formation when fluoride should be administered to children. . . . To administer fluoride to the rest of the adult population who do not need it, and to inflict upon a certain small, but significant percentage of individuals, a disease entity of allergy to fluoride seems unjust and unnecessary to me. . . . I feel that it is safe and more effective to administer fluoride on an individual basis. . . . If individuals in our society are so complacent that they cannot administer their own fluoride on a daily basis, then perhaps they deserve to pay the additional

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expense of dental cavities and dental care. . . . I realize another great problem in this issue are the indigents, who also are sometimes too complacent to administer daily fluoride and these individuals have to be educated and encouraged to follow medical and dental advice in order that society does not have to pay for their complacent acts."

William Hindle, chairman of the Hawaii Section of the American College of Obstetricians and Gynecologists, thanked Lois Taylor, the Star-Bulletin's Family Today Section Editor, and "and other (almost) true stories" for featuring Hawaii as one of the leaders in family planning education in the U.S. "Hawaii should be proud of the hospital-based OEO-OCOG Family Planning Program which has been established at Kapiolani Hospital by Drs. Saiki and Pion. Their utilization of inpatient closed-circuit television for patient education, the concept of utilizing family planning technicians to visit all postpartum and abortion patients in Kapiolani Hospital and the development of a comprehensive coordinated family planning program brought national recognition to the Hawaii Section District VIII of the American College of Obstetricians and Gynecologists which was recently awarded the Wyeth Award for his family planning program as the outstanding section ACOG activity in the entire nation." (*Our kudos.*)

Kona's **Wilmot Boone** has strong views on smoking: "As a physician, I see almost daily the victims of smoking. To this day, after 33 years of practice, I have seen no one benefitted by smoking. This drug, together with alcohol and pot and the known damaging drugs, should be made most difficult to obtain. There is no real, no psychological, no moral, no medical need for any of these drugs. Why condone any of them?"

When queried about inducing labor for year-end tax benefits, OB man **Gail Li** admitted he wouldn't mind, "if the conditions are favorable, if the patient is a term, if the cervix is ripe. . . . There is nothing immoral about it if the baby is ready." Francis Terada also says, "I

think it is reasonable if conditions are favorable. . . . If it is just a matter of giving them a gentle push, and bang, they are done."

Hal Wood, Advertiser sports editor, reports: "Dr. **Richard You**, who used to be a doctor but who now is a traveling salesman for the AAU and the Olympics, drops a note from Baghdad: 'Great things have happened in amateur sports and the U.S. Olympic Committee. . . . You can expect more international meets between Russia and U.S. in track and field, swimming, boxing and weightlifting. . . .'"

Octogenarian **Steele Stewart** had this commentary about the death of the old: "A number of years ago, my brother-in-law while traveling in India came across a wild celebration. He inquired as to its cause. He was told that they were celebrating the death of an old person; they only mourned the death of young people. To me, an active octogenarian, this sounds more sensible than the pagan way in which we are supposed to note the passing of ex-President Truman. From Truman's standpoint his death could only have been a blessing. True his family will miss him, but they could hardly ask him back."

Jogger **Jack Scaff, Jr.** who runs the newly established Cardiac Rehabilitation Center at the Central YMCA says bluntly: "The sedentary way is the lethal way. . . . A non-exercising person is a dying person. . . ."

Announcements

AMERICAN COLLEGE OF PHYSICIANS 1972-73 POSTGRADUATE COURSES

These courses are arranged through the cooperation of the directors and the institutions involved. Registration forms and requests for information are to be directed to: Registrar, Postgraduate Courses, American College of Physicians, 4200 Pine Street, Philadelphia, Pa. 19104.

May 21-25, 1973

INTERNAL MEDICINE: CURRENT CONCEPTS OF CLINICAL PROBLEMS

University of Cincinnati Medical Center, Cincinnati, Ohio.

May 21-25, 1973

INTENSIVE CARE UNITS

St. Vincent's Hospital and Medical Center of New York, New York, N. Y.

May 29-June 1, 1973

RECENT ADVANCES IN ENDOCRINOLOGY AND THEIR CLINICAL APPLICATIONS

Royal Victoria Hospital, Montreal, Que., Can.

June 4-8, 1973

HEMATOLOGY

University of Washington School of Medicine, Seattle, Wash.

POSTGRADUATE COURSE

CLINICAL GASTROENTEROLOGY

September 10-16, 1972; Castle Harbour Hotel, Bermuda. For additional information write: Vernon M. Smith, M.D., Director, The American Society for Gastrointestinal Endoscopy, 301 St. Paul Place, Baltimore, Md. 21202.

10TH ANNUAL CANCER CHEMOTHERAPY CONFERENCE

Will be held at the University of Wisconsin, Madison, on September 6-8, 1972, presented by the University of Wisconsin Medical Center. For information contact Dr. G. Ramirez, 714C University Hospitals, Madison, Wisconsin 53706.

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appreciation for their support of the scientific program in past years and acknowledging that the program this year does not include any topics on cancer but will be included in future programs.

C. *Legislation*: The legislative program for the year was summarized and copies of position papers were presented for review.

D. *Medical Services*: Workmen's Compensation legislation was reviewed. The Ad Hoc Committee on the HMA/HMSA/DSS Proposal met recently to discuss the flow charts and review system to be followed in the program. It was noted that this proposal is subject to review on an annual basis. The proposal should not conflict with the Foundation PSRO proposal.

ACTION:

It was voted to approve the proposal.

E. *Interprofessional and Public Affairs*: Health Facilities Committee recommends disapproval of the request to endorse legislation which would allow opening of medical records to the patient.

ACTION:

It was voted to support the position of the Health Facilities Committee.

The Medical-Legal Inter-Professional Code was revised and presented for approval. Section I A-3 of the code was corrected to read: Physicians, clinics, and hospitals should, upon request and proper authorization, promptly forward x-rays or make them available to the examining and/or treating physician.

ACTION:

It was voted to approve the Code with the above amendment.

A Conference on the Future of Health Care is scheduled for May 4-6, 1973.

ACTION:

It was voted to publicize the conference in the monthly newsletter.

UNFINISHED BUSINESS

Progress reports were presented on the EMS Project, Cancer Commission and EMCRO project. Mr. Won reported that the officers of the Hawaii Foundation for Medical Care were elected as follows: Winfred Y. Lee, President; Henry Yokoyama, Vice President; Henry Oyama, Secretary; and Ann Catts, Treasurer; George H. Mills, Rodney T. West, George Bracher, Sakae Uehara, and Peter Kim—trustees.

Employee Handbook: The final increment of the Employee's Handbook covering job descriptions for HMA-HCMS employees was circulated to the Council. It was recommended to delete those responsibilities relating to the BME from the description for the Administrative Assistant.

ACTION:

It was voted to approve the Handbook as amended.

Course on Medical Terminology: Dr. Lichter presented his ideas for the development of a faculty to teach medical terminology to laymen. Action was deferred until the next meeting.

ADJOURNMENT

The meeting adjourned at 10:20 P.M.

R. VARIAN SLOAN, M.D.

Hawaii Heart Ass'n continued from 102

tococcal infection, however, Tetracycline and sulfanomides are not recommended.

Penicillin is also used prophylactically to prevent bacterial endocarditis, especially in patients with congenital heart disease or rheumatic heart disease. The etiological agents may vary and one should be aware that it is usually the alpha streptococci (viridans) and strep fecalis (enterococci) that are most often involved in a SBE rather than the beta hemolytic group A form. Prophylactic treatment is usually more intense and usually for a brief period, however, treatment should not be interrupted if a potential source of bacteremia is actively present such as draining abscess. Any procedure which may be associated with transient bacteremia warrants therapy as outlined in the summary. The therapist must be well aware that other organisms resistant to penicillin may be involved with transient bacteremia and lead to endocarditis (enterococci following instrumentation of GU tract, lower GI tract, during childbirth, etc.). Penicillin should be prescribed in the manner as recommended by the American Heart Association. Therapy is started either parentally or orally on the day of the procedure, and for at least two days following the procedure. Intense pre-treatment for more than a day prior to the procedure may eradicate all the penicillin-sensitive organism with resultant growth of penicillin-resistant organism which may cause a more resistant-type of endocarditis.

SUMMARY

*Preventive Recurrence of Rheumatic Fever**

1. Intramuscular Benzathine Penicillin G 1.2 million units every month (less for children under 10 years old) is the drug of choice.
2. Secondary choice is oral therapy, Penicillin G 250,000 units twice daily, on an empty stomach, ½ hour ac or 1 hour pc.

Prevention of Bacterial Endocarditis†

1. One to two hours just prior to procedure (i.e. dental, pharyngeal, or oral, etc.) Procaine Penicillin 600,000 units plus crystalline Penicillin 600,000 units I. M.
2. For 2 days after procedure—Procaine Penicillin I. M. each day. As a secondary choice, Penicillin G 500,000 units may be given orally, 4 doses every four to six hours before the procedure and an extra dose 1 hour before the procedure and continue 4 doses per day for the next two days.

* ALLERGIC PATIENTS—Erythromycin 250 mg. B.I.D. may be substituted.

† ALLERGIC PATIENTS—Erythromycin 250 mg. Q.I.D. may be substituted.

REFERENCES

American Heart Association—"Prevention of Rheumatic Fever."
American Heart Association—"Prevention of Bacterial Endocarditis."

COOLIDGE S. WAKAI, M.D.
Cardiologist, Medical Specialty Clinic

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Lesion #2—Two days after initiation of therapy. Electron micrograph of solar keratotic skin from patient's hand.

Typical abnormalities are:

Malpighian cells [containing an abundance of thick tonofibrils (T)] which are connected with well-developed desmosomes (D). Note the clumped tonofibrils in the so-called 'dyskeratotic' cell (arrow) indicative of solar keratosis. No change can be noted at this level after two days of therapy. $\times 5000$ (12/16/71)



Lesion #3—Two weeks after initiation of therapy. Electron micrograph of skin from patient's hand.

Improvement shown:

Less conspicuous desmosomes (D), widened intercellular spaces and Malpighian cells showing a remarkable reduction of tonofibrils (T). The arrow indicates a degenerating dyskeratotic cell. $\times 5000$ (12/31/71)

Solar, actinic or senile keratoses

By whatever name they may be known, they commonly occur as multiple lesions and chiefly on the exposed portions of the skin. Because they may be premalignant, it is generally agreed that they should be treated. Surgery, cryotherapy, or electrodesiccation may present certain drawbacks, both for the physician and the patient, but there is Efudex[®] (fluorouracil)—as an alternative to conventional therapy.

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Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (> 5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides

are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

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—George Sarton, from "The History of Medicine Versus the History of Art"

**Are there significant
differences in bioavailability
and clinical predictability
among drug products?**

Opinion

**Results of a questionnaire to
7,000 physicians:**

44.6%

**Agree there is a significant
difference**

24.9%

Believe there is no difference

30.5%

Had no opinion

Are there significant differences in bioavailability and clinical predictability among drug products?

Teacher of Medicine

Alfred Gilman, Ph.D.
Wm. S. Lasdon
Professor & Chairman
Department of
Pharmacology
Albert Einstein
College of Medicine of
Yeshiva University



I think that there can be a very great distinction between generic drugs and brand name drugs. And that applies to products of original research that have outlived their patent protection as well as to drugs that have long been in the public domain. Let me explain why.

The Importance of the Manufacturing Environment

In terms of formulation, quality control, and the ability to reproduce an essentially identical product, batch after batch, I doubt that many firms are properly equipped to put out a product that is as carefully controlled as the product marketed by a pharmaceutical company with sophisticated research and high quality manufacturing facilities. For example, when a company comes out with its own preparation of a drug that has just lost its patent protection, there is no assurance that the drug it produces will be a therapeutic equivalent. The raw material could be identical and yet bioavailability might vary from complete unavailability to that which is equivalent to the original.

It Isn't Enough to Meet USP and NF Standards

Meeting USP and NF standards is not enough to guarantee therapeutic equivalence. In certain instances, stricter standards must be applied. Right now, the New York Heart Association has a committee that is studying the problem of digoxin equivalent

lency. I am certain that they are going to recommend a bioavailability assay of a particular digoxin. Unless this is done, they will not recommend it for purchase or use in New York City hospitals. It represents too much of a hazard. They have gone so far as to recommend a batch-by-batch certification of bioavailability even though the company has been reproducing and marketing a digoxin product through the years.

The Problem of Controlling Bioavailability of Generics

The FDA does not have the manpower to inspect the quality control capabilities of hundreds of houses specializing in generic products. And I don't think that the average pharmacist is knowledgeable or aware of the quality and bioavailability of the infinite numbers of generic preparations. A recommendation has been made that every time a generic house (or for that matter a large pharmaceutical company) markets an already existing drug for the first time, a modified new drug application should be submitted. The manufacturer would have to show that his compound is the therapeutic equivalent of the standard compound in use, assuming that the standard compound is one that has been available for an extended period—say 15 years. This would be one indication that the control of bioavailability is beginning to get the attention that it deserves.

Clinical Predictability More Important Than Price

Although the question of price has been greatly exaggerated, it is true that patients can on occasion save money on generic drugs. But you are not going to dare attempt to save money if it jeopardizes patient's health. Let's turn to the example of digoxin. It has become very prominent in recent years, that of cardiac glycosides. There are probably the most drugs we use with respect to the small difference between a maximally effective dose and a toxic dose. When you are dealing with drugs of this type, the first concern must be clinical predictability. At the risk of variations in bioavailability, it would be sheer folly to try to save the patient what might amount to maybe \$10 or \$20 a year. The physician cannot risk saving his patient unless he is sure that the drug he is prescribing has the same positive effect each time the prescription is renewed. This is especially significant when the patient takes the product, not for himself but for the rest of his life.

Maker of Medicine

C. J. Cavallito, Ph.D.
Executive Vice President
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Although equivalence of different preparations of a drug substance may be deduced by certain physical, chemical or biological characteristics, identity is not always assured even though the characteristics may be described in compendia such as the USP, NF or defined by other specific reference standards. Moreover, even with equivalent drug substances, similar pharmaceutical products may be produced by different manufacturers such that these products are biochemically or therapeutically equivalent.

Growing Awareness of Potential for Nonequivalence
As experience increases in drug substances derived from different sources under different conditions, it should be possible to establish specifications in sufficient detail to minimize potential for their nonequivalence. However, there is general agreement that product therapeutic equivalence would still not be assured even if one could

minimize nonequivalence of drug components produced by different manufacturers. Arguments relate largely to the extent of product inequivalences. Experience over the past six years has uncovered a greater incidence of nonequivalence of products prepared by different manufacturers from generically equivalent substances than many had previously surmised.

Newer Bioavailability Studies Reveal Differences
Bioavailability may be defined as a measure of the rate and amount of absorption of a drug substance from its administered dosage form. For several years pharmaceutical scientists have proposed that bioavailability data on presumably equivalent dosage forms provide the best measure of product equivalence—short of adequate clinical trial. In their continued search for shortcuts to the evaluation of product equivalence, medical and pharmaceutical scientists have increasingly relied upon bioavailability characteristics as reflected by blood levels of a drug after its administration to human subjects.

Leading manufacturers now conduct comparative bioavailability studies on their own product dosage forms after production process changes that would have been considered inconsequential a few years ago. This isn't surprising, since there are so many possible differences in production operations that the opportunities for inequiva-

lent generic and brand name products are numerous—even when the production process begins with identical chemical substances. Moreover, reputable manufacturers are striving to improve *in vitro* control measures, such as dissolution characteristics, which are being related more meaningfully to bioavailability reference data.

As a result of advances in scientific instrumentation and analytical methodology which permit measurements of small quantities of drug substances in the body, our abilities to detect differences in bioavailability and possible therapeutic nonequivalence have appreciably improved.

Product Selection Based on Patient Response
Improved specifications and standards can better assure the equivalence of drug substances. Manufacturers, compendia and regulatory agencies can all play a part. However, it is the drug product, not the drug substance, that the physician, pharmacist, nurse and patient-customer utilize. How can these indi-

viduals make or influence specific product selections to minimize variations in therapeutic equivalence of multisource drugs? Patients' responses to a drug product provide a basis of experience to aid the physician in his selection of a particular product. The nurse and pharmacist can also help detect patient responses, but ultimate responsibility must remain with the physician.

Reputation of Manufacturer as Basis for Product Selection

The physician, to assure that his patients receive quality health care, must rely upon the capabilities of the reputable pharmaceutical manufacturer who is equipped to develop, prepare and control a quality product of uniform, reliable therapeutic performance. Substitution with purportedly equivalent generic products that are only superficially evaluated by an imitator manufacturer can place the health of the patient secondary to factors of price or convenience for the provider.

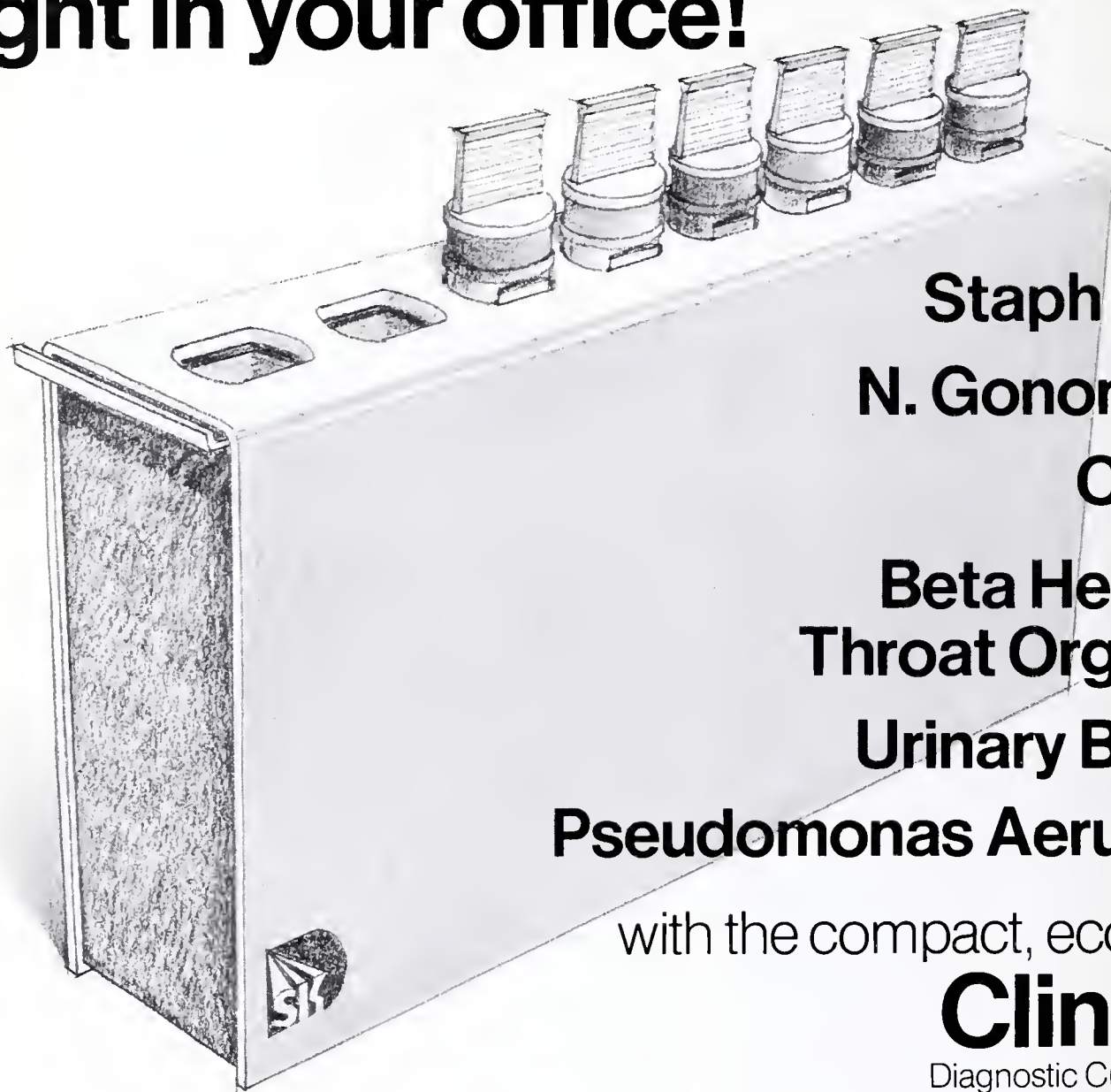
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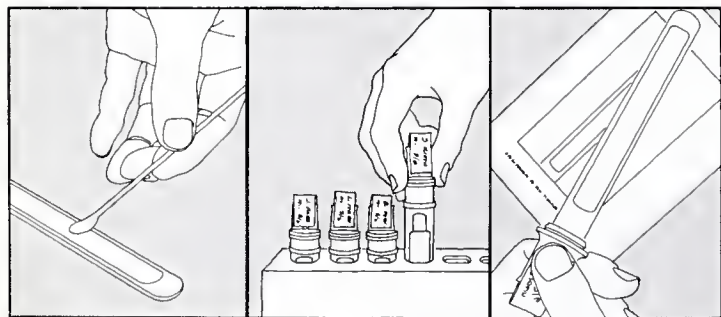
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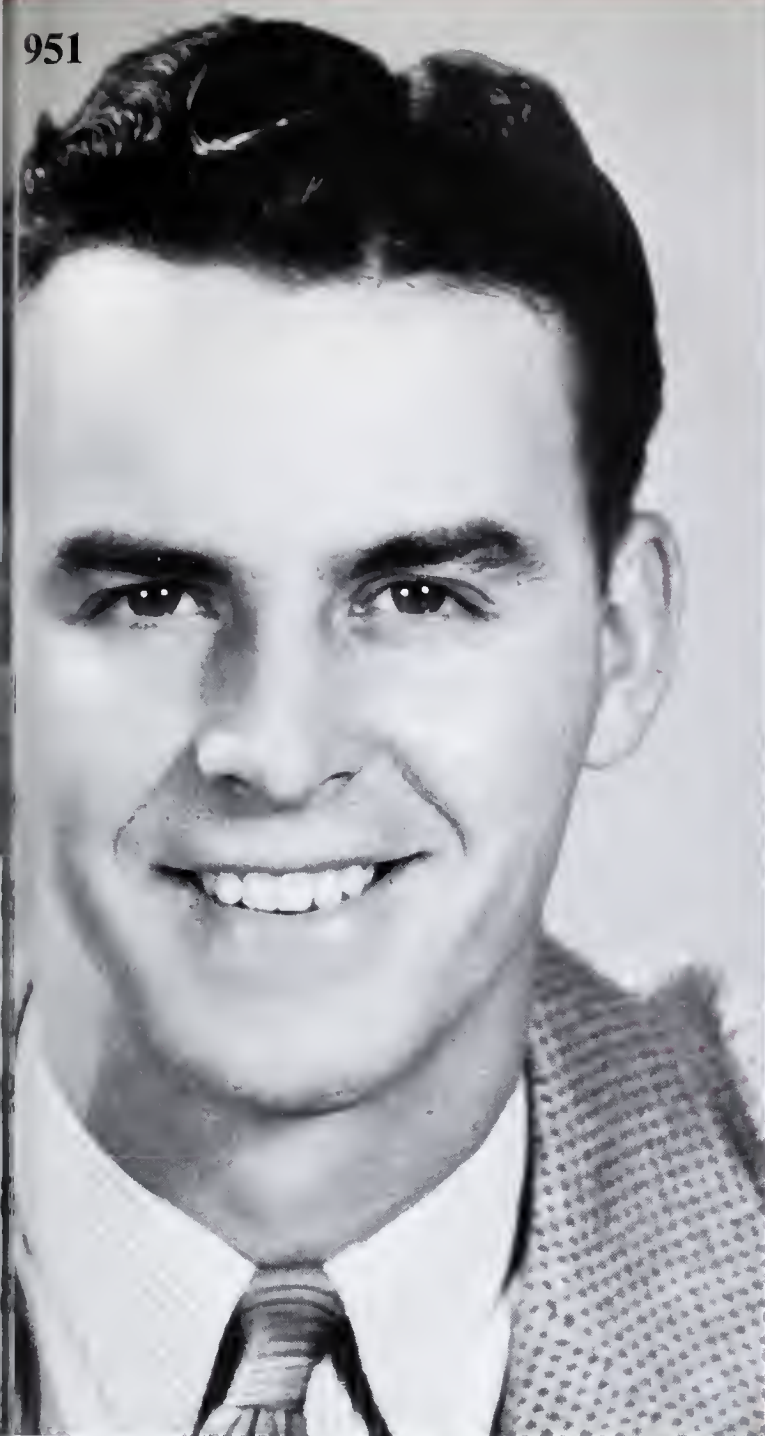
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HAWAII MEDICAL JOURNAL

VOLUME 32 / NUMBER 3 • MAY / JUNE 1973



What should a medication for sleep be expected to provide?



Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or

recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years

of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with

Sleep for 7 to 8 hours without need to repeat dosage during the night

No sleep medication has been as rigorously evaluated in the sleep research laboratory as Dalmane. Insomnia patients given one 30-mg capsule of Dalmane at bedtime, on average: fell asleep within 17 minutes, had fewer nighttime awakenings, spent less time awake after sleep onset, and slept for 7 to 8 hours with no need to repeat dosage during the night.

Sleep with consistency

Dalmane (flurazepam HCl) has been shown to be consistently effective even during consecutive nights of administration. Thus there is little likelihood for the need to increase dosage to maintain therapeutic effect.

Dalmane is in a class by itself. Not a narcotic, barbiturate or methaqualone, Dalmane is the only available benzodiazepine specifically indicated for insomnia.

Sleep with relative safety

Chronic tolerance studies have confirmed the relative safety of Dalmane (flurazepam HCl); no depression of cardiac or respiratory function was noted in patients administered recommended or higher doses for as long as 90 consecutive nights. In most instances when adverse reactions were reported they were mild, infrequent and seldom required discontinuance of therapy. Morning "hang-over" with Dalmane has been relatively infrequent. Dizziness, drowsiness, lightheadedness and the like have been the side effects noted most frequently, particularly in the elderly and debilitated. (An initial dose of Dalmane 15 mg should be prescribed for these patients.)

When your evaluation of insomnia indicates the need for a sleep medication, consider Dalmane—a single entity agent proved effective and relatively safe for relief of insomnia.

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(flurazepam HCl)

When restful sleep is indicated

One 30-mg capsule h.s.—usual adult dosage

(15 mg may suffice in some patients).

One 15-mg capsule h.s.—initial dosage for elderly or debilitated patients.



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nt depression or suicidal tendencies.
odic blood counts and liver and kid-
function tests are advised during
eated therapy. Observe usual precau-
s in presence of impaired renal or
atic function.

Adverse Reactions: Dizziness, drowsi-
s, lightheadedness, staggering, ataxia
falling have occurred, particularly
derly or debilitated patients. Severe
ation, lethargy, disorientation and
a, probably indicative of drug intoler-
e or overdosage, have been reported.

Also reported were headache, heart-
burn, upset stomach, nausea, vomiting,
diarrhea, constipation, GI pain, nervous-
ness, talkativeness, apprehension, irri-
tability, weakness, palpitations, chest
pains, body and joint pains and GU com-
plaints. There have also been rare occur-
rences of sweating, flushes, difficulty in
focusing, blurred vision, burning eyes,
faintness, hypotension, shortness of
breath, pruritus, skin rash, dry mouth,
bitter taste, excessive salivation, anorexia,
euphoria, depression, slurred speech,

confusion, restlessness, hallucinations,
and elevated SGOT, SGPT, total and direct
bilirubins and alkaline phosphatase.
Paradoxical reactions, e.g., excitement,
stimulation and hyperactivity, have also
been reported in rare instances.

Dosage: Individualize for maximum bene-
ficial effect. *Adults:* 30 mg usual dosage;
15 mg may suffice in some patients.

Elderly or debilitated patients: 15 mg
initially until response is determined.

Supplied: Capsules containing 15 mg or
30 mg flurazepam HCl.

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*Cover: An original engraving from the collection of
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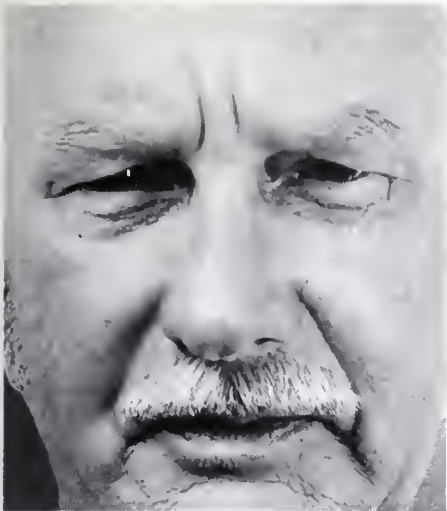
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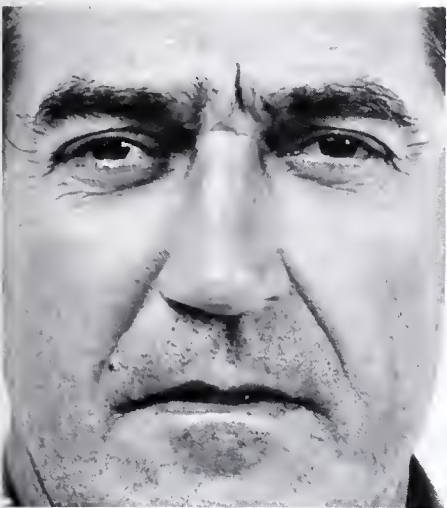
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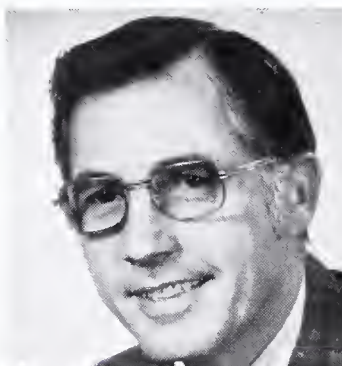
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Opinion & Dialogue

"Prescription drugs – who should determine the maker?"

Dispenser of Medicine

Clifton J. Latiolais
President
American
Pharmaceutical
Association



Maker of Medicine

C. Joseph Stetler
President
Pharmaceutical
Manufacturers
Association



"Too many doctors are indifferent to the economic consequences of their decisions." So stated a recent issue of *Medical News Report* (December 4, 1972), an independent weekly newsletter published by former AMA Chief Executive F. J. L. Blasinger, M.D.

Doctor, are you indifferent...?

In discussing an anticipated increase in Blue Shield rates, Dr. Blasinger's newsletter had this to say:

"In general, it can be said, MDs have given the impression they are not particularly concerned with the increase in cost of health care to their patients..."

"True, an MD's training is primarily scientific, but in the real world of practice, all of his scientific decisions have a price tag, or an economic impact. The economics of health care beckon the practitioner's attention. Concern for economics of medicine is

When the pharmacist recommends that a drug product other than the one ordered be dispensed, the prescriber invariably permits the change when he feels the best interests of the patient will be served.

Shortcomings of Pro-Substitution Argument

The fact remains that it is necessary for the prescriber to know that the change is being contemplated and to be in a position to consent or demur. Without that opportunity, a unilateral decision of the pharmacist made in the absence of clinical knowledge of the patient, could expose him to needless risks, and in addition, jeopardize the relationship between the professions of Pharmacy and Medicine. In my view, there is nothing in the pro-substitution argument that offsets these risks.

The Issue of Drug Knowledge

Substitution advocates claim that the primary justification for changing the rules is the desire to better utilize pharmacists' knowledge about drugs. Yet the pharmacist's task to keep current on the entire field of drug therapy, to some degree puts him at a disadvantage. Most often, a practicing physician will rely on expert knowledge of no more than

ould be an obligation of medical
ctice...

"Medical societies ought to con-
duct continuing campaigns to point
to the substantial savings that could
be realized thru deductible insurance
and protection for catastrophic ill-
ness. At the very least, they should, in
patients' interest, question the
policies of any insurance organization
that raises health care costs by forc-
ing policyholders to buy insurance
they may not need or want and prob-
ably won't ever use.

"Too many doctors are indiffer-
ent to the economic consequences of
their decisions. Too many, for ex-
ample, habitually hospitalize patients
for the convenience of the MD. It's
sense to deny such habits exist...

"Doctors, thru their medical so-
cieties, have unhesitatingly appealed
their patients for support in the
fight against government interference
with the private practice of medicine.
And the public in the past has re-
sponded. It's time the American Med-
ical Association and state and local
medical societies paid off the debt by
positive action to hold down the cost
of medical care."

Cost of Drugs

Insurance rates and hospital
charges are only two factors in health

care costs. The cost of drugs—both
prescription and nonprescription—is
another.

And when it comes to drug
costs, the nation's pharmacists are
concerned. Through their national
professional society, the American
Pharmaceutical Association, pharma-
cists are advising the public to use
nonprescription medication cau-
tiously and conservatively, and to seek
the advice of their pharmacist before
selecting or purchasing such drugs.

Outdated Laws

The pharmacist also is aware
that when it comes to prescription
drugs, often he has an even greater
opportunity to reduce the cost to the
patient—with no sacrifice in the qual-
ity of the medication dispensed. But
in many states, outdated and anti-
quated laws prevent the pharmacist
from engaging in drug product selec-
tion. "Drug product selection" simply
means that the pharmacist functions
in the patient's interest by con-
sciously choosing, from the multiple
brands available, a low-cost quality
brand of the specific drug to be dis-
pensed in response to the physician's
prescription order.

Much *misinformation* has been
purposely spread by those who stand
to gain financially by maintaining

high drug costs to the public. An end-
less stream of propaganda has ema-
nated from the drug industry in an
effort to persuade the medical profes-
sion that these so-called anti-substitu-
tion laws should be retained. And as
long as these laws are retained, the
drug industry will continue its current
marketing practices which contribute
unnecessarily to high drug costs to
patients. These practices also are in-
viting government agencies to expand
their restrictive controls on physi-
cians and pharmacists.

APhA Efforts

As pharmacists, we are con-
cerned about health care costs. We
hope that every physician shares our
concern on this vital issue, and will
give his personal support to the con-
structive efforts APhA has undertaken
in the interest of all patients.

*(For a complete discussion of
drug product selection, you are invited
to request a free copy of the "White
Paper on the Pharmacist's Role in
Product Selection" from: American
Pharmaceutical Association,
2215 Constitution Avenue, N.W.,
Washington, D.C. 20037.)*

30 drugs that he selects to treat the
majority of conditions encountered in
his practice. Moreover, the physi-
cian's choice of a specific brand is
based on his knowledge of the pa-
tient's medical history and current
condition, and his experiences with
the particular manufacturer's
product.

Some substitution proponents
have argued that the dispensing of a
prescription is a simple two-party
transaction between the pharmacist
and the patient, and that a substitut-
ing pharmacist may avoid even a
technical breach of contract by simply
notifying the patient that he is making
the substitution. I would judge that
few courts would be sympathetic
toward a pharmacist who substituted
without physician approval and who
undertook a legal defense that seeks
to make the patient responsible for
the pharmacist's actions.

Reduced Prescription Prices?

Substitution advocates are
suggesting to the consumer, and par-
ticularly the consumer activist, that
reduced prescription prices could
allow legalization of substitution.
We have seen absolutely no evidence
to justify this claim. To the contrary,
experience in Alberta, Canada, where
substitution is authorized, suggests

the opposite.

Many pharmacists understand-
ably are concerned about the cost of
maintaining multiple stocks of similar
products. While there is no doubt that
inventory costs rise when additional
brands are stocked, it would be inter-
esting to know how much they rise,
and how many pharmacists actually
stock *all* brands—of, say, ampicillin
or tetracycline—or how long they
keep "slow moving" products on their
shelves before they are returned for
credit. To ask that the industry elimi-
nate multiple sources is to ask com-
petitors to stop competing.

Drug Substitution—A License for the Unethical

Anti-substitution repeal would
favor "corner cutting" pharmacists
and manufacturers. For them, free
substitution would be not a right, but
a license. As an aftermath, it is quite
likely that the confidence of both phy-
sicians and patients in the profession
of Pharmacy would be eroded, as
revelations about the unconscionable
behavior of an undisciplined few were
magnified in the press or in profes-
sional circles.

Summary

In short, what the American
Pharmaceutical Association advo-

cates as a broad-spectrum panacea
looks to us to be not only a minority
view (advocacy of substitution is by
no means a uniform policy in Phar-
macy), but also an extraordinarily
costly and ineffective remedy, whose
side effects are odious. We believe
(1) that an impressive majority of
pharmacists prefer to work with
Medicine and with industry, for the
consumer, and for the general good,
(2) that they seek the privilege to sub-
stitute when the patient might gain
and when the patient's doctor agrees,
and (3) that they seek to work for the
resolution of genuine grievances
openly and professionally.

*(For amplification of PMA views,
please write for our booklet, "The
Medications Physicians Prescribe:
Who Shall Determine the Source?"
It is available from: Pharmaceutical
Manufacturers Association, 1155
Fifteenth Street, N.W., Washington,
D.C. 20005.)*

Pharmaceutical
Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005



—prescribing, please consult
cor product information, a sum-
m which follows:

Indications: Tension and anxiety
s, somatic complaints which are
comitants of emotional factors; psy-
choneurotic states manifested by tension,
anxiety, apprehension, fatigue, depres-
sive symptoms or agitation; symptomatic
relief of acute agitation, tremor, delirium
tremens and hallucinosis due to acute
alcohol withdrawal; adjunctively in skele-
tal muscle spasm due to reflex spasm to
local pathology, spasticity caused by
upper motor neuron disorders, athetosis,
stiff-man syndrome, convulsive disorders
(not for sole therapy).

Contraindicated: Known hypersensi-
tivity to the drug. Children under 6
months of age. Acute narrow angle glau-
coma; may be used in patients with open
angle glaucoma who are receiving appro-
priate therapy.

Warnings: Not of value in psychotic
patients. Caution against hazardous
occupations requiring complete mental
alertness. When used adjunctively in con-
vulsive disorders, possibility of increase
in frequency and/or severity of grand mal
seizures may require increased dosage of
standard anticonvulsant medication;
abrupt withdrawal may be associated
with temporary increase in frequency
and/or severity of seizures. Advise
against simultaneous ingestion of alcohol
and other CNS depressants. Withdrawal
symptoms (similar to those with barbitu-
rates and alcohol) have occurred follow-
ing abrupt discontinuance (convulsions,
tremor, abdominal and muscle cramps,
vomiting and sweating). Keep addiction-
prone individuals under careful surveil-
lance because of their predisposition to
habituation and dependence. In preg-
nancy, lactation or women of childbearing
age, weigh potential benefit against
possible hazard.

Precautions: If combined with other
psychotropics or anticonvulsants, con-
sider carefully pharmacology of agents
employed; drugs such as phenothiazines,
narcotics, barbiturates, MAO inhibitors
and other antidepressants may potentiate
its action. Usual precautions indicated in
patients severely depressed, or with latent
depression, or with suicidal tendencies.
Observe usual precautions in impaired
renal or hepatic function. Limit dosage to
smallest effective amount in elderly and
debilitated to preclude ataxia or over-
sedation.

Side Effects: Drowsiness, confusion,
diplopia, hypotension, changes in libido,
nausea, fatigue, depression, dysarthria,
jaundice, skin rash, ataxia, constipation,
headache, incontinence, changes in sali-
vation, slurred speech, tremor, vertigo,
urinary retention, blurred vision. Para-
doxical reactions such as acute hyper-
excited states, anxiety, hallucinations,
increased muscle spasticity, insomnia,
rage, sleep disturbances, stimulation
have been reported; should these occur,
discontinue drug. Isolated reports of neu-
topenia, jaundice; periodic blood counts
and liver function tests advisable during
long-term therapy.

If there's good reason to prescribe for psychic tension..



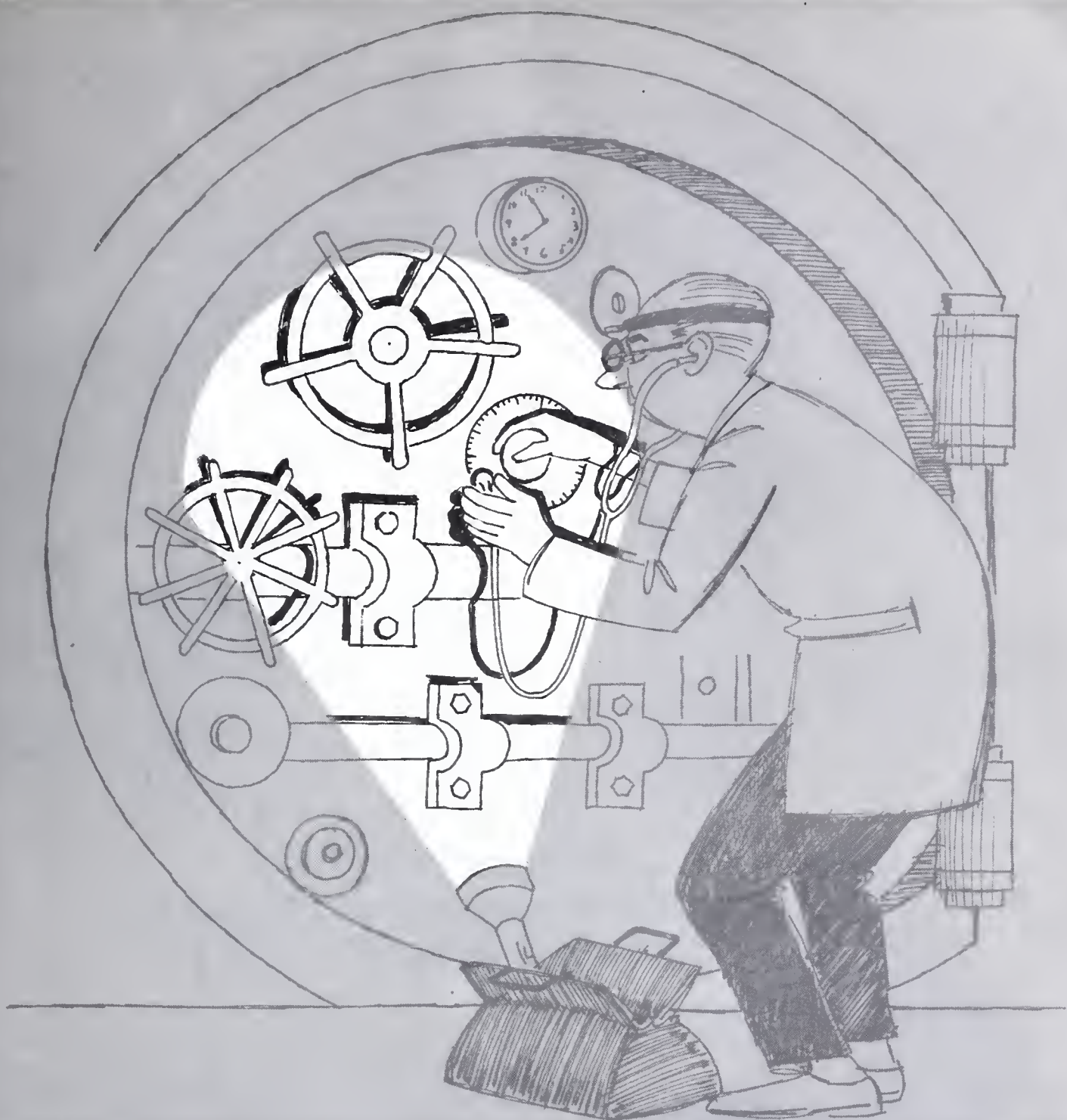
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Letters to the Editor

To the Editor:

I was very surprised and disturbed upon reading your editorial in the March-April 1973 issue of the Hawaii Medical Journal. I am not concerned with your advice regarding the reception of detail men; it is my personal practice to receive them in my office whenever possible. I am very disturbed however by your final paragraph in which you urge prescription of certain brand name products in preference to others. I believe that advice such as this may lead to the practice of an inferior type of medicine.

My concern comes for three main reasons. (1) Some of the products, for example clindamycin (Cleocin) and erythromycin estolate (Ilosone) are made by only a single manufacturer. Their selection for use should therefore be governed solely on the indications for using the particular drug. (2) There are some drugs for which the indications are not quite so clear. They may be used while others may be used equally as effectively. This category might include phenylbutazone (Butazolidin), minocycline (Minocin) and triamterene-hydrochlorothiazide (Dyazide). In using these drugs, the physician must be guided by his own knowledge of the relative efficacy, adverse effects, and cost of the drug in question and other drugs which might be used in the same situation. (3) There are other drugs such as griseofulvin, erythromycin, and penicillin V which are made by other pharmaceutical companies under brand and generic

names. In this situation the physician must be guided by his own feelings regarding the reliability of brand name versus generic products, relative cost of the various preparations, and preference for a particular manufacturer.

The selection of a drug is a complex matter. Reliance solely on brand names, without considering alternative preparations and costs, will result in instances of therapy which is not optimal and will tend to pass the cost of medical publications directly to the patient, rather than having the cost borne by the pharmaceutical company itself.

Sincerely,

Richard I. Frankel, M.D.
Assistant Professor of Medicine

No physician in his right mind would advocate basing a choice of medication on whether or not the manufacturer advertises in a particular publication, unless all other factors influencing the choice were equal. We are in complete agreement with Dr. Frankel and we thank him for clarifying our suggestions, which were made solely to express our appreciation for, and to encourage other manufacturers to advertise in our publication.

Ed.



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IH, SH, MS-1 HAA—Is it alphabet soup, or the way to exposing the hepatitis virus(es)?

Ruminations of a Middle-aged Hepatitis Watcher

ROBERT H. MOSER, M.D., *Wailuku, Maui*

The saga of viral hepatitis is as absorbing as any in modern medicine. It has occupied my interest in a desultory fashion for fifteen years; it keeps cropping up. My first confrontation with epidemic viral hepatitis came in 1955 when I was chief of medicine at the 109th Field (Army) Hospital in Salzburg, Austria. Dr. Alois Peczenik and I had the opportunity to study a batch of week-end military skiers who had the misfortune to encounter a hepatitis virus while enjoying the slopes and gemütlichkeit of Bad Gastein. To make a long story short, we had a water-borne epidemic. I learned a great deal about hepatitis, and it afforded the opportunity to publish one of my first papers.¹

But I did not see epidemic viral hepatitis again until arriving on Maui (although we encountered a great deal of random hepatitis among soldiers during my years in the Army). Our early Maui hippies lived the pot-happy, primitive, permissive life, and scorned the seductions of civilization. There was only one problem: they lacked the instinct, cunning, and sense of self-preservation of other field-dwelling, communal mammals. They fouled their nest. They converted one of the loveliest beaches on earth into a fecal-contaminated quagmire, albeit only temporarily. I will not dwell on this except to express my opinion that their major contribution to our Island was Shigella, a lot of simplistic pseudophilosophy, an expansion of welfare rolls, and viral hepatitis.

HEPATITIS was known to Hippocrates. In fact, Schiff (3rd edition)² relates that "the Coan School generally maintained that patients should be allowed ambulation *ad libitum*, whereas the

Cnidian School insisted on strict bed rest." It all sounds rather familiar.

Throughout the centuries, hepatitis was known as "catarrhal jaundice," a malady due to obstructing edema of the ostium of the common bile duct. This phrase was proposed by Bamberger in 1855 and in 1865 was popularized by Virchow, the patron saint of pathology, who discovered mucous plugs in the bile ducts of four patients who died of apparent hepatitis. Most curiously, he did not describe the liver in any instance—most singular, since it seems difficult to ignore the liver when exploring the common bile duct. And these four livers most certainly must have been the scene of significant hepatic devastation.

Virchow's oversight resulted in perpetuation of the error for many decades. It was carried through the first nine editions of Osler. Gradually, the fact that a sick liver was the culprit in catarrhal jaundice came into clinical recognition. The work of Botkin, Heitler, and Flindt helped dispel the myth of ostium obstruction.

The distinction between "infectious hepatitis" and "homologous serum hepatitis," once clear cut (due to our ignorance), is somewhat fuzzy again (due to our new knowledge). The differences between infectious hepatitis (which goes under the synonyms of "short incubation," IH, MS-1, non-Au(1)) and hepatitis transmitted primarily by the percutaneous route (known as "long incubation," SH, MS-2, Au(1) and HAA—[hepatitis associated antigen]) began to dawn during World War II. Viral hepatitis scourged the Afrika Korps at El Alamein and badgered all armies locked into the campaigns throughout Italy.

"Epidemics" of postvaccinal hepatitis can be traced back to 1885 and an outbreak among factory workers in Bremen, who had been given smallpox vaccine contaminated with human serum.² A

¹ Presented to the Department of Medicine, University of Hawaii, College of Medicine, February 18, 1972.
² Maui Medical Group, Maui Professional Center, Wailuku, Maui, 96793.

critical retrospectoscope has also been aimed at so-called "postarsphenamine" jaundice. It is now strongly suspected that arsphenamine was an innocent passenger, while the real culprit was HAA—as the purveyor of hepatitis.

DIFFERENT NEEDLES, SAME SYRINGE!

I can recall, with something of a chill, my days as an intern in 1948, when I made early-morning "blood drawing" rounds on the wards of the old Gallinger (D.C. General) Hospital. With forty or fifty veins to be tapped before work rounds, I gathered up the nurse and "blood cart" on one end of the ward and worked my sanguinary way to the other. Blood was drawn by changing needles and flushing out the syringe! It was common practice to use the same syringe for four or five patients. Today we know that 0.00004 ml of whole blood can migrate from needle tip to syringe in four or five seconds. This capillary action can operate in the reverse direction, and would seem an ideal way to transmit the hepatitis virus!

Then there was the infamous "contaminated batch" of yellow fever vaccine from pooled serum, that was distributed liberally throughout the armed forces in 1941. This resulted in 28,585 known icteric cases of viral hepatitis. We suspect from other studies that the anicteric patients equalled or even doubled this figure. And no one knows how much this contributed to the subsequent pool of postnecrotic cirrhosis.

But I guess it was the use of pooled plasma that produced the greatest source of iatrogenic viral hepatitis. After the process of lyophilization was perfected, that single unit of plasma—dramatically hooked onto the stock of an M-1 rifle jammed bayonet-first into the soil to deliver the precious fluid to the wounded infantryman—could contain plasmas from hundreds of donors. In June, 1945, the Surgeon General reported that 23% of cases of viral hepatitis in Army hospitals were associated with the administration of pooled plasma.

When one reflects upon the widespread military and civilian use of pooled plasma during the late '40's and early '50's, plus the anicteric patients who were never recognized as viral-hepatitis victims, one wonders why there are only one or two viral-hepatitis carriers per thousand people in this country today. It must mean that most individuals have cellular and humoral defenses that are effective in destroying the virus.

SYMPTOMATOLOGY VARIES

The clinical aspects of viral hepatitis are well known. It usually begins as a flu-like disorder with

a low-grade fever in the preicteric phase, but this is not without exception. Recently, I saw a young man who presented with 103° fever. Usually there is lassitude, unusual susceptibility to fatigue and dark urine. These are usually preicteric phenomena; some patients complain of nausea, headache, and abdominal discomfort. At Brooke General Hospital we saw one cluster of young soldiers in whom myalgia and meningismus were presenting complaints. We made presumptive diagnoses of leptospirosis—until the serology was found to be negative, and the true picture emerged.

Often it is necessary to ask the patient about urine color and especially stool color. It is surprising how few people look at their stools. Once the conjunctivae (not the sclerae) become icteric, the diagnosis is usually easy. It is always wise to check the base of the tongue and the tympanic membranes, compare unexposed skin to exposed skin, and look at scars. These are places where subtle icterus hides. Bright, full spectrum light should be used.

Another curious clinical aspect of the hepatitis associated with HAA was presented by Onion³ and his group in Seattle. They described three patients (and added three more in an addendum) who had rash and symmetrical polyarthritis which preceded the onset of clinical icterus by 2 to 16 days. The illness in these patients resembled rheumatoid arthritis or serum sickness. This is quite similar to the phenomena seen in rubella, mumps and with some of the arboviruses such as chikungunya and dengue.

Onion's six patients were studied in considerable detail and were found to have positive HAA and depressed complement levels in their synovial fluid and serum. With the onset of clinical icterus the arthritis resolved, serum complement returned to normal, and HAA was no longer detectable in the serum. It is known that in most individuals the HAA disappears soon, usually within two weeks, after the onset of clinical disease. The authors suggest that this sequence of events is reminiscent of other diseases, such as serum sickness and systemic lupus erythematosus, in which circulating immune complexes lodge in tissues and cause injury.

A MULTIPLE SYSTEM DISEASE?

It is always nice when studies by different investigators complement each other. Thus I am reminded of the paper by Col. Marc Conrad⁴ and his group at the Armed Forces Institute of Research, in which they described abnormal hepatic, renal, and small intestinal biopsies in patients with viral hepatitis. They expressed the view that viral

hepatitis is a generalized disease involving many organs.

In a similar vein, Gocke and colleagues⁵ described a peculiar polyarteritis in muscle and liver biopsies taken from patients with HAA hepatitis. By immunofluorescence they demonstrated IGM globulin and complement components in the walls of small blood vessels.

In Conrad's study, focal glomerulonephritis and thickening of the capillary basement membrane were observed in renal biopsies from their viral hepatitis patients. They thought that this resembled an "immune complex" nephritis. In Onion's paper, one of the three patients described in the addendum suffered transient hematuria and red cell casts during a time when hemolytic complement in the serum was reduced.³

Thus we have further evidence that viral hepatitis may represent a disorder in which the victim has immunologic *difficulty* in handling the HAA. It persists to form complexes, where antibody is joined by HAA and complement, which home in on liver, kidney, muscle, and perhaps other tissues, causing injury.

Of course, hepatic enlargement and tenderness remain the *sine qua non* of diagnosis. The patient with a really tender liver will permit one or at best two good shots at the leading edge before the rectus muscles grumble and turn it into a tug of war. Just as in palpating the spleen in infectious mononucleosis, "gang palpation" is to be deplored. Not only will this subject the patient to unnecessary pain and possible trauma, but he will be prepared on the morrow with pre-tensed abdominal muscles and clenched fists. The second guy in line never has a chance. I find fist percussion fore and aft over the right lower ribs, comparing left with right, most helpful. Occasionally a patient's liver will be non-tender when percussed anteriorly, yet remarkably tender when punched posteriorly over the lower right ribs. I grade the pain response arbitrarily from 1+ to 4+, and I always watch the facial expression of the patient. We have all encountered that occasional stoic character who begins to feel better and expresses open disenchantment with your apparently pointless, therapyless program. He may deny fist-percussion tenderness, but usually his eyebrows betray him at the first punch.

HOW TO PLOT YOUR COURSE:

In the pre-icteric stages the most sensitive liver function tests are the bromsulfalein (BSP) and the enzyme tests (serum glutamic oxaloacetic transaminase — SGOT, serum glutamic pyruvic transaminase—SGPT, and lactic dehydrogenase—

LDH. As far as I am concerned, the BSP is a fine test, but it is a one-time affair. Thankfully, I have never seen an anaphylactic reaction, but they do occur. And the frequency increases with repetition. Now that testing for Australia antigen (HAA) has become routine, one should add this to the other studies.

To follow the course of the disease and track it through the period of intrahepatic obstruction, it is helpful to get a weekly liver function battery. Everyone has favorites: I like to follow the SGOT (or SGPT), alkaline phosphatase, Vandenburg (conjugated and unconjugated) and, mostly for fun, the two-hour urinary urobilinogen (UU) every other day for the first ten days. It is fascinating to watch the urobilinogen disappear from the urine during the intrahepatic cholestatic phase and correlate this with acholic stools and rising serum bilirubin. Then you can watch the whole process reverse when intrahepatic obstruction is released. The UU is helpful in predicting clinical response; usually within a day or so after urobilinogen returns to the urine and stools regain normal color, the patient will begin to feel better and his appetite surges back. The flocculation tests are losing favor; most prefer a plasma protein electrophoresis. It is also fun to follow the serum iron (it skyrockets in acute viral hepatitis with liberation of ferritin from damaged hepatocytes), but it does not add much information. Liver biopsy is reserved for complicated or baffling diagnostic problems.

Except in the rare instance of relapse, the patient will be well on his way to recovery, free of complications, once his sense of well being returns.

Recently I have been impressed with the difficulty in sorting out viral hepatitis from drug-induced hepatitis and drug-induced cholestasis. Contrary to much that has been written, at times I find this to be a most vexing differential diagnosis, and I have been obliged to go to liver biopsy (which is not always helpful).

TO EXERCISE OR NOT TO EXERCISE?

I will not discuss therapy except to comment that I know of no other area in medicine (with the possible exception of angina pectoris) where the bleached bones of therapeutic enthusiasts litter the landscape in greater profusion. We have all lived through B-complex, arginine, methionine, choline, alpha-tocopherol, and chicken soup. There is still considerable fantasy and folklore about diet and rest.

From work done in Munich and Tokyo by Army investigators, we learned that enforced bed

rest is not helpful. In fact it may even be harmful, in that it may cause unnecessary debility and spiritual depression. So, for the most part, I let my patients do "what comes naturally." I am still "old school" enough to frown on pushups or jogging, but patients certainly are permitted to sit in comfortable chairs, walk about as they choose, and use the bedside commode or walk to the nearby bathroom.

I am obliged to mention the paper by Repsher and Freeburn,⁶ two Army physicians, who did a controlled study in Viet Nam. They put some GI's with tender livers and yellow eyeballs through a program of strenuous exercise for approximately three hours a day, at the time their symptoms were considered to be slight. This was done irrespective of the degree of liver-function abnormality. The controls were treated by conventional methods. When Freeburn joined our staff at Walter Reed, he allowed as how he suspected many of the "liberated" patients wandered to the canteen and used up their beer ration. But the facts were no evidence was found to indicate a harmful effect of exercise on course, duration, or incidence of sequelae.

Diet is a matter of engaging a clever dietitian who asks the patient what he likes and then ensures prompt delivery of hot and attractively garnished food. Advocates of high protein (1.0 gm per kg of body weight per day) and high carbohydrate (4.0 gm/kg/day) stand on safe, traditional ground, but there is no evidence to indicate that a little fat (to make food more palatable) is harmful. In fact, I have not been able to document the fact that stuffing the patient with excessive calories of any sort is really helpful. (It always bothers me to see patients in the coronary age group being encouraged to gluttony for weeks on end.)

DID THE STEROIDS HELP?

The use of steroids remains controversial. I must confess that I use prednisone in those patients who worry me by not having turned the corner clinically by about the tenth day. I have no controlled data, but my seat-of-the-pants observation is that after 48 hours of 15 mg prednisone every six hours, the appetite begins to return and the remission seems to occur. I have not seen exacerbations upon rapidly withdrawing prednisone after seven to ten days, but apparently others have. I will never know whether, had I sweated it out until day 11 (or had I taken the prednisone myself), remission would have occurred anyway, spontaneously.

I am reminded of a patient I saw at William

Beaumont General Hospital, El Paso, in 1965. House officers had admitted a young soldier with classic hepatitis, like so many others we had seen over the years. But this kid became very sick very rapidly. His jaundice deepened, cutaneous spiders blossomed, asterixis appeared, and after six days he was in coma. By then he was being plied with heroic doses of hydrocortisone intravenously, neomycin by stomach tube, etc. But we were losing ground, and after 24 hours of coma we began to call in blood donors. Or about day 10, as we stood poised to start the exchange transfusion, he opened his yellow eyes and asked for water. Within the next few days, he was much improved, and by three weeks, he was home on convalescent leave.

We biopsied his liver before his return to duty, and the sections were almost normal. How do you explain that? A triumph for hydrocortisone? Hardly. It could have been a triumph for exchange transfusion, had we been 24 hours quicker on the draw. So I don't know much about our treatment for hepatitis; there is much too much that remains unexplained.

ENTER THE AUSTRALIA ANTIGEN

The most exciting new dimension in the viral hepatitis story is the Australia antigen—now referred to as HAA (Hepatitis Associated Antigen)—and all that has followed in its wake. This antigen seems to be an intrinsic marker of the SH virus; some people say that it *is* the SH virus. It was discovered in 1964 by Baruch S. Blumberg and his group⁷ at NIH while they were exploring variations in serum proteins that might provide clues to genetic traits.

Soon thereafter, HAA was identified in 10 to 20% of "normal" people in tropical countries (Philippines, Taiwan, Southeast Asia); 10% of leukemic children; 30 to 35% of institutionalized patients with Down's syndrome; between 2 and 3% of commercial blood-donors; 20% of institutionalized retarded children, and about 10% of patients with active hepatitis. From 1:500 to 1:1000 apparently normal United States citizens bear the antigen upon testing.

When these data appeared, many eyebrows were raised, since in contemplating these figures it must be recalled that, as far as we know, IH virus is *not* detected by HAA testing. Thus it remained difficult to explain Southeast Asians and Down's syndrome patients—who had *never* been exposed to injections, yet bore the HAA antigen and often had abnormalities of liver-function tests compatible with chronic viral hepatitis. In commenting upon this, Blumberg said: "There are

a large number of observations on the distribution of antigen (Au(1)) in various populations. In general, it occurs relatively often in many areas of the tropics and Southeast Asia, particularly in locations where sanitation is poor and under conditions that are compatible with the easy spread of infectious agents by the fecal-oral route."

To summarize, there is solid evidence: (1) that IH (non-HAA virus) can be spread *parenterally*; and (2) that SH (HAA virus) can be spread by the *fecal-oral* route. This may account for the large reservoir of HAA-positive individuals who have never been exposed to injections.

HEPATITIS FROM "COMMERCIAL" BLOOD

Still other aspects of the problem were dramatized in three exciting papers. The first, by John H. Walsh et al.,⁸ from Bethesda, was a careful study of 110 patients who underwent open-heart surgery with cardiopulmonary bypass. These investigators found that 42 of 82 such patients who received blood from commercial sources developed hepatitis. Thirteen were frankly icteric; 29 were anicteric. In those who received 15 or more units of commercial blood, the incidence of hepatitis was 62%. In those who received less than 15 units, it was still 34%. In a group of 28 patients in the same study who received blood from volunteers, there was no hepatitis.

The incidence of icteric viral hepatitis in this series was 9.7 cases per 1,000 units of commercial blood. Others have reported figures of 1.4 to 12 cases per 1,000 units of commercial blood. In the past, commercial sources have included prisoners, skid-row characters, drug addicts, and even impecunious interns and residents.

The next equally fascinating report was by W. Thomas London et al.⁹ (of Blumberg's group), who described nine patients and six staff members who developed viral hepatitis in a period of one year while working in a chronic dialysis unit. They found HAA in the blood of eight of nine patients and two of six staff members. The most interesting aspect of this study was the variation in clinical response between chronically ill hemodialysis patients and healthy staff members, all of whom were apparently exposed to the same virus.

The staff members developed acute "classical" hepatitis (serum bilirubin over 3.0 mg/100 ml, SGPT over 1,000 units, and duration of SGPT elevation of less than ten weeks). By comparison, the dialysis patients developed chronic anicteric hepatitis (SGPT under 1,000 units, but persisting more than 20 weeks).

To thicken the plot even more, Denison et al.¹⁰ described two brothers who died of hepatocellular

carcinoma. Both had macronodular cirrhosis with features of subacute progressive viral hepatitis. One was not tested for HAA, but his brother was HAA positive. The father had died 23 years previously from primary hepatocellular carcinoma. The authors suggest that impaired immunity of genetic origin might have been the underlying factor in the disease of all three of these family members.

All of this resurrected the question that has been haunting hepatologists for many years. What are the pathogenesis and pathophysiology of hepatitis? When an individual receives blood known to contain HAA antigen, it is estimated that he has 50 to 75% chance of coming down with viral hepatitis (icteric or anicteric). One may ask what is the difference between those who *do* and those who *do not*? Why do the various selected groups (Southeast Asians, institutionalized Down's syndrome patients, leukemic children, etc.) have HAA in their blood for years, while other people shed it within two weeks—the half-life of the antigen? Why did azotemic chronic-dialysis patients react differently than normal controls to the same antigen?

DOES THE HOST DETERMINE THE HEPATITIS?

The answer lies somewhere in the depths of the morass we call "impaired immunologic responsiveness." This would seem to be the denominator that unites these apparently disparate groups. And this seems to be the factor that causes them to respond sluggishly and imperfectly to assault by the HAA-bearing virus. As London said, "This suggests that the host, rather than the agent, may be the major factor determining the clinical features of viral hepatitis."

Carrying this a step further George F. Grady¹¹ said, "In the United States a small fraction of hepatitis patients continue to carry the antigen for months or years. Sometimes the liver function tests in these patients are slow to return to normal, and they may have clinical or biopsy evidence of active chronic hepatitis. The carrier state is not necessarily associated with clinical or biochemical evidence of disease, however." Thus one can carry the virus and *transmit* it without clinical or laboratory evidence of disease.

Later in the same article he suggests: it may be necessary to reassess the relevance of genetic determinants as they affect immunologic response in the clinical and pathologic reaction to viral hepatitis. He cited the animal analogy of Aleutian mink disease, in which the virus occurrence is universal, but only animals "homozygous for a recessive trait are most likely to become chronic carriers."

HAA testing has become a tool widely employed in blood banks to aid in the screening out of viral hepatitis carriers. The limitations of the test are appreciated when one realizes that about one-third of post-transfusion hepatitis patients are HAA-negative. This is strong additional evidence to support the concept of parental transmission of IH. The IH-SH waters are muddied still further by the fact that 35% of short IP IH patients (who offer no history of parenteral exposure) will be HAA positive!

Alfred M. Prince¹² of the New York Blood Center adopted the Culliford high-voltage immuno-osmo-electrophoresis (IOEP) technique to replace the more cumbersome Ouchterlony agar-gel-diffusion procedure in identifying HAA in prospective blood donors. By the Ouchterlony method, only 20-30% of HAA carriers were detected, and much of the blood left the bank, enroute to recipients, before the tests were complete. This was a practical problem in blood banking; often there was not sufficient time to allow completion of the tests, since, of course, blood must be used within a definite period of time.

However, by using the IOEP method, Prince was able to increase sensitivity to where he can identify 50 to 90% of HAA carriers. He described no false positives. This was a tremendous boon. However, recently a hemagglutination test has been devised which is about 2,000 times more sensitive than the IOEP method.¹³

These tests will not detect non-HAA carriers, but perhaps the "serum antigen" described by del Prete et al¹⁴ may turn out to be a marker for IH virus.

Another paper of importance was that of Sutmoller et al¹⁵ (also of Blumberg's group), who cited the remarkable incidence of endemic hepatitis among personnel in a research laboratory working with human blood and tissues in the study of Australia antigen. All 139 individuals in the laboratory were tested for SGPT levels and HAA, 56 of them at monthly intervals on five to 32 occasions over a three-and-a-half-year period. The 83 others were tested less frequently. Twenty-seven abnormal elevations were found in the serums of the 56 individuals tested frequently. Among this group there were four cases of typical icteric acute viral hepatitis with HAA in the serum, and 15 who though anicteric had significant rises of SGPT indicative of "subclinical hepatitis." There were eight who had small SGPT rises.

Seven laboratory workers were treated with bed rest as soon as the SGPT exceeded 50 Karmen units; in six of these the levels returned promptly to normal. The authors question whether this indicated the virtue of bed rest, but it did occur.

The important thing that resulted from this disturbing study and other similar ones is the recommendation for strict infectious precautions and monthly monitoring of SGPT and HAA in all personnel exposed to human or non-human primate blood or tissues.

DON'T DRINK THE VIRUS!

Commenting editorially on the risks to laboratory workers, Barker and Gibson¹⁶ added a caveat against mouth-pipetting of any potentially viral contaminated material. They also were concerned about droplet aerosol dissemination and recommended that vertical laminar-flow hoods be used when such material is being studied. They expressed concern about the safety of stained and dry agar gel-diffusion plates, and recommended that anything in the laboratory that came in contact with potentially HAA-contaminated material be considered infectious until it had been autoclaved for one hour or incinerated.

It was suggested that studies are in order for well-controlled randomized investigation of the efficacy and safety of passive immunization with hyperimmune globulin against HAA.

The role of gamma globulin in the prophylaxis of IH seems well established. A word must be said about prophylactic immune serum globulin (ISG) or gamma globulin. A common problem encountered by the clinician in dealing with viral hepatitis is the determination of who should receive gamma globulin, once a primary case has been identified. Gamma globulin has been thought to be ineffective against HAA hepatitis, but this is open to debate. Unequivocally GG does have a good track record against short-incubation-period IH. In general, gamma globulin is recommended for family contacts, all persons exposed to a common source after one or more cases have occurred (such as those drinking contaminated water), and those about to enter endemic areas. The recommended dose varies from 0.01 to 0.06 ml per pound of body weight. Although the half-life of gamma globulin is estimated at about 2 to 3 weeks, the administration of ISG or gamma globulin given every 4 to 6 weeks has proven reasonably effective for those in endemic viral hepatitis areas.

GAMMA GLOBULIN IN THE GAZA STRIP

Perhaps this is best dramatized by the decline in incidence of viral hepatitis among Swedish soldiers sent to Gaza as part of a peace-keeping UN force. The incidence of hepatitis was 4.0% before gamma globulin was given; it dropped to 0.1% after a program of periodic gamma globulin inoculation.

The anticipated benefit of gamma globulin is attenuation of the clinical impact of IH; it does

not reduce the attack rate. This thesis was tested in a study on American soldiers living in an endemic area in Thailand. Nearly 500 men were given pooled gamma globulin prophylactically and SGPT tests were done every three weeks for eight months. Thirty-six were found to have significant elevations of SGPT, 25 of these had liver biopsies, in four the tissue resembled typical viral hepatitis; yet these men were asymptomatic and anicteric. The attack rate was calculated at 1.54% per year (after excluding cases not fulfilling rigid pathologic criteria).

But the important question was: What is the significance of biochemical and pathologic evidence of viral hepatitis in the absence of clinical signs and symptoms? Can one equate "attenuation" with "clinically inapparent" disease? Does the gamma globulin just make them feel better, despite the pathology? Can this lead to a chronic active hepatitis or a carrier state?

A recent paper by Col. Mare Conrad and his group¹⁷ at the Walter Reed Army Institute of Research has thrown considerable light on the efficacy of prophylactic gamma globulin. This group studied 107,803 U.S. soldiers assigned to Korea, in an effort to settle once and for all whether prophylactic injections of U.S.-derived human serum gamma globulin prevent icteric endemic viral hepatitis. Each soldier received an intramuscular injection containing either 2, 5, or 10 ml of gamma globulin or the placebo solution upon arriving in Korea. Sixty-five % received a second injection of the same material five to seven months later. Gamma globulin prophylaxis significantly decreased the incidence of hepatitis and provided passive protection for about six months. The 0.5 ml dose produced maximal protection.

The most important aspect of the study, aside from reaffirming the efficacy of prophylactic gamma globulin, was the fact that virtually identical protection was provided against HAA-positive and HAA-negative endemic hepatitis. They also found that the severity of illness was somewhat diminished in the gamma-globulin-protected group even when they did develop clinical hepatitis.

The search for a means of active immunization against viral hepatitis in high-risk groups continues. Krugman and associates¹⁸ studied the effects of inactivated HAA serum at Willowbrook. They gave ten children one inoculation of 0.2 ml of 1:10 dilution of inactivated HAA serum. In six children, HAA could be identified subsequently. Approximately four months later, five of these were challenged with untreated HAA serum and all showed elevated SGOT. Six of the children showed detectable antibody: by the 42nd day in five, by the

56th in the sixth child. This was taken as evidence of some protection.

They took a second group of four children and gave them two doses of inactivated HAA serum approximately 4½ months apart. Four months after the second dose, they challenged them with active serum. None developed clinical hepatitis. All four developed antibody; three of the four showed no antigen at the time of the subsequent study, and three had no elevation of SGOT. The author concluded that, at least in this group, under the conditions of this trial, two inoculations of the inactivated serum seemed to be immunogenic. Infectivity had been destroyed, but antigenicity remained intact.

DETECTION OF HHA IN HEMOPHILIAC SERUM

In studies on passive immunization, Krugman also described work with a special high-titer immune globulin, harvested by plasmapheresis from hemophilia patients. These unfortunate individuals have received between 500 and 1,000 transfusions and have thereby suffered an extraordinary exposure to HAA. This is the source of serum used in most blood banks for detection of HAA antigen.

Krugman et al¹⁸ studied children again at Willowbrook (where most of these retarded children seem to get infected with both varieties of hepatitis within six to twelve months after entering the school). The incidence among retarded institutionalized children who have been followed for one year ranges around 36%.

Fifteen of these children were given 0.1 ml of 1:10 solution of active HAA serum. Four hours later five of the 15 children were given standard commercial gamma globulin, and ten others were given 0.2 ml per pound of body weight of the special high-titer gamma globulin. In the latter group, HAA antibody was detected as early as three hours after the inoculation of the high-titer gamma globulin, and it persisted for eight to 29 days. Three of the five children who received standard gamma globulin had evidence of antigen 43 and 57 days later. Three had elevated SGOT levels. This was considered evidence of clinical viral hepatitis. There was no clinical or laboratory evidence of disease in nine of the ten children who received the high-titer gamma globulin. One developed VH after a long incubation period.

This study suggests that high-titer gamma globulin might provide some degree of passive immunity against small inoculations of HAA virus, such as one might acquire from a needle. But the author hastened to add that he did not think it could protect against the quantity of virus presented in transfusions.

Later Prince et al¹³ utilized a passive hemagglutination technique to assess the HAA antibody content of various immune globulins. They assayed conventional "convalescent" and hyperimmune HAA gamma globulin preparations. HAA antibody was detected at low titer in most batches of conventional gamma globulin and at very high titer in gamma globulin prepared from hemophilic plasma. Injection of this latter material resulted in the appearance of HAA antibody that remained detectable for at least two months in the blood of 50% of recipients. The authors found that antibody levels in paid donors were comparable to those present in patients with hemophilia.

As a corollary, Prince et al advised caution in the clinical application of hyperimmune globulin. They say "Exogenous antibody may depress the immune response. . . . For this reason, caution is indicated in the use of SH immune globulin shortly after exposure to serum hepatitis, or early during the incubation period of the illness. The administration of "SH immune globulin" at such a time might increase the risk of a chronic carrier state. . . . If liver damage in hepatitis is the result of an immuno-pathologic mechanism, an impairment of immune responsiveness might attenuate the acute disease, but also might impair the ability of the host to rid himself of the infection. Although chronic infections with serum hepatitis virus may appear to be innocuous, some chronic SH antigen carriers have been found to have chronic liver disease. . . . Advantages and disadvantages derived from the use of this material in prevention, modification, and treatment of SH virus infections must be clearly evaluated before widespread application can be made."

Katz et al¹⁹ added a modified gamma globulin (hydrolyzed) to whole blood before transfusion. This was given to 1,970 patients. Five developed icteric viral hepatitis; none were severe. In 2,019 untreated (no gamma globulin added) transfused controls, 18 developed icteric viral hepatitis; six were severe, with two deaths. The incidence of an-

icteric hepatitis in the two groups was similar. No untoward reactions to the intravenous gamma globulin was noted.

THE UNANSWERED QUESTIONS

Of course, there are many other unanswered questions, but the one which looms largest is the problem of the asymptomatic carrier. It is estimated that in this country the chronic HAA-carrier state will be found in between 0.1 and 1.0% of individuals who have never been transfused. Some feel it is even higher. And, of course, this figure is vastly exceeded in certain other portions of the world.

If we find an asymptomatic carrier, what does it mean? Is he merely an asymptomatic *healthy* carrier, or is he a carrier with occult chronic liver disease? (It is estimated that 20 to 25% of people with chronic active hepatitis will bear the HAA for many years.) Or does it mean that the individual is in the prodromal phase of acute HAA hepatitis?

Once identified, how shall such patients be treated? If you find their enzymes elevated, do you put them to bed? What are the implications for the HAA-positive physician, nurse, dentist, blood bank worker, food handler, barber, etc? Are we going to provide the rest of their family members with periodic inoculations of high-titer gamma globulin? Of course, there are no immediate answers to these problems.

The most fascinating aspect of all seems to be that the reaction of the individual to viral hepatitis is probably a mixture of size of inoculation, virulence of strain, and, most important of all, the immune response of the individual, which is determined genetically. And one can speculate upon all infectious disease; it may be the host, after all, with his individual pattern of cellular and humoral responsiveness, who determines the clinical course of his disease.

We have come a long way since Virchow and his mucin-plugged bile ducts. One has the feeling that the conquest of viral hepatitis may be at hand.

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The discovery of hepatitis virus as Australia antigen began serendipitously.

Australia Antigen: Current Concepts

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The emphasis of many scientific papers, administrative discussions, and teaching workshops at the American Association of Blood Banks meeting in September, 1971, was on hepatitis. This was to be expected in light of the stand taken by the AABB and the government concerning the screening of all blood and blood products for hepatitis-associated antigen. As of October 1, 1971, screening of all blood for HAA was required, and antibody used for screening had to be licensed. This paper summarizes the findings leading to the present level of knowledge linking Australia antigen with hepatitis, briefly discusses the methods used for detecting the antigen, and presents some of the current data of its incidence.

IN 1963 at the National Institutes of Health, Blumberg was studying the variation in serum constituents as a way to measure genetic traits. He used patients who were multiply transfused, since they developed antibodies against serum proteins in the transfused blood. Twenty-four sera from hemophiliacs were reacted, using a precipitin system. One of these formed a band with the serum from an Australian aborigine. It was called Australia antigen, considered to be an unusual lipoprotein, and thought to be a fixed genetic trait. The antigen was found in 10-20% of people in the tropics, but in only 0.1% of persons in the continental United States. There was a relationship between the antigen and certain diseases: leukemia, 10%; Downs syndrome, 30-35%, and in those patients with hepatitis and a history of parental exposure, 60%.²

Meanwhile, Prince at the New York Blood Center was examining donor blood for a serum hepatitis virus with the electron microscope. He

believed a viremia would precede clinical infection. Association was cautiously suggested between hepatitis and Australia antigen when a child with Downs syndrome developed hepatitis. Another patient lost the antigen when convalescent from post-transfusion hepatitis.

Blumberg and Prince worked together to isolate Australia antigen and, in 1968, reported that small virus-like particles were associated with the antigen and could be agglutinated by sera from certain hemophiliacs. They demonstrated that the agglutinating substance was in the gamma globulin fraction. They could not demonstrate nucleic acid in the material and thought that the antigen might represent a virus shell.

More recently, as reported at the AABB meeting, lipoprotein, IgG, complement, and RNA are found to be present. Electron microscopic study reveals 20 μ virus particles with 3 μ subunits arranged in a polyhedral fashion. Fluorescein-tagged antibody reacts with particles clustered about the nuclei of liver cells, a characteristic location of some viruses.

The next major development came from studies by Krugman and associates at Willowbrook School.³ The authors had distinguished two forms of hepatitis at the institution:

MS 1—short incubation, relatively light infection, highly contagious

MS 2—longer incubation, illness usually more severe, lower infectivity

Frozen sera from MS 1 and MS 2 pools were inoculated into two groups of children. Thirty-one received MS 1, and 19 received MS 2. Two separate laboratories examined the test patients' sera from before the infection to 200 days after the infection. Results were the same, with variation only in the time of appearance of the precipitin line. Australia antigen was present in the MS 2 pool, but not in the MS 1 pool or in any of the

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Blood Bank of Hawaii.

MS 1 patients. Australia antigen, or hepatitis associated antigen, HAA (the preferred term), was detected in all patients with MS 2. Fourteen were given intramuscular injections of MS 2. The antigen was detected first at 27 days and was detected in all by 41 days. It was detected before the rise in SGOT (seven to 46 days) in all but one case. In this case, a positive antigen was only detected on two days throughout the entire infective course. In one case, the HAA was positive and continued for 200 days, but a rise in SGOT never developed. After oral feeding of MS 2 sera, four of five patients had detectable HAA in their sera. It appeared from 81-83 days afterwards and again preceded the rise in SGOT by seven to 21 days. In a single case the antigen was not found in the subject although a rise in SGOT was present for four days. Their conclusions from this study were:

1. There is a consistency in association between HAA and MS 2 infection. The antigen is either unrelated to or fails to reach detectable levels in MS 1 infection.
2. It is transmissible by either the oral or parental route. The old concept of infectious and serum hepatitis is obsolete.
3. The regular appearance of the antigen during incubation and before biochemical evidence of hepatitis coincides with the timing for a viral agent rather than a product of hepatocellular damage. Its fall below the level of detectability in some before-peak SGOT levels may explain the failure to find it in many routine acute phase sera from hepatitis patients. In a third of the series, the antigen would have been missed if serial serum specimens during late incubation had not been available.
4. The severity and duration of symptoms and abnormal liver function tests appeared to have no direct relation on the duration of the antigen in the serum.
5. The persistence of the antigen for years in nine of these people raises the question of antibody stimulation. It appears that it is not a very good antigen in terms of antibody stimulation. The antibody was not detected in convalescent sera.

The blood bank, whether in a small hospital or large research center, needs a rapid, reliable method for screening. The methods and their basic principles follow. Evaluation of technical aspects and problems of sensitivity and specificity are discussed in detail elsewhere.⁷ The methods used for screening for HAA can be divided into two groups:

- I. Blood donor screening
 - agar diffusion
 - counterelectrophoresis
 - complement fixation
 - latex particles
 - hemagglutination inhibition
 - radioimmunoassay
- II. Hepatitis research
 - ultracentrifugation
 - electron microscopy
 - immunofluorescence

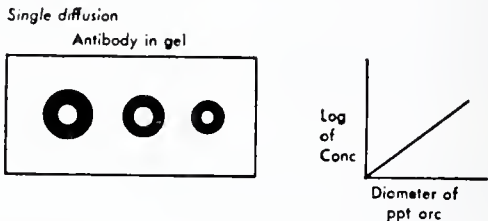
Agar Diffusion

Immunodiffusion is defined as "the diffusion of homologous antigen and antibody towards each other in a semisolid medium where at some point a Precipitin line occurs."¹¹ The method is simple and often used for unequivocal identification as it can be compared to a known positive sample. Drawbacks are its lack of sensitivity. (Fig. 1).

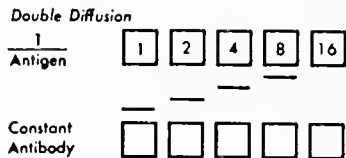
FIG. 1.—Immunodiffusion methods.

Reaction depends on precipitation in supporting medium. Rate of reaction is temperature dependent.

A. Single diffusion: A uniform antibody concentration is present in the gel, antigen diffuses and forms a precipitin ring in proportion to its concentration.



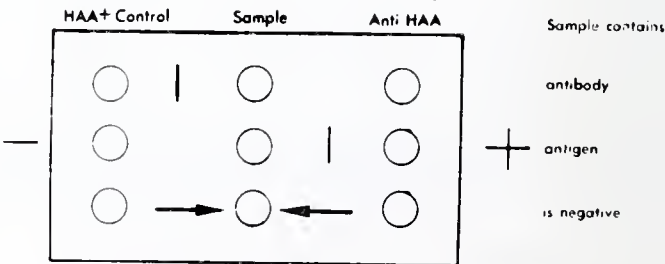
B. Double diffusion: Both antibody and antigen diffuse creating a concentration gradient. Precipitation occurs at point of appropriate concentration.



Counterelectrophoresis (Immunoelectrodifffusion)

The method depends on the separation of substances in a polarized electrical field depending on their net charge. Proteins have both a positive, NH₃⁺, and negative, COO⁻, charge. Their net charge depends on the PH of the solution and on the isoelectric point (the pH at which the charges are neutral) of the protein. (Fig. 2).

FIG. 2.—Counterelectrophoresis.



For example:

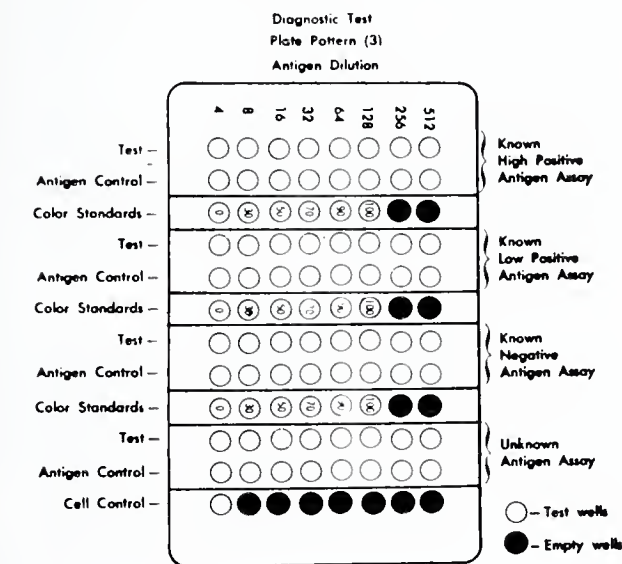
buffer 8.2	net charge	moves toward
gamma glob.	+ -	stationary
albumin	-	anode
HAA	-	anode

Agarose is not electrically neutral and tends to move toward the anode. The water in it tends to move toward the cathode. Since the agar is fixed the water and water-soluble proteins move toward the cathode. The direction of movement is thus a combination of this endosmosis and electrical charge. Counterelectrophoresis has been used extensively by blood banks for donor screening.

Complement Fixation

The reaction depends on an indicator system. RBC + anti-RBC hemolysin = coated cells. Add C' and get lysis. Without C' there is no lysis. If one adds HAA and antibody with C', the complement binds the reaction and is not available for the indicator system. No lysis is a positive test. This is simple in theory but a time-consuming and tedious test. There are many unstable reagents. Results may be variable in inexperienced hands or when performed only occasionally. It is a highly sensitive test and used in some blood banks. (Fig. 3).

FIG. 3.—Interpretation of diagnostic test. The endpoint is determined as the highest antigen dilution giving a 3+ (30 percent) fixation.



Latex Particles

Latex particles are coated with partially purified anti-HAA (guinea pig). They are mixed with the test serum and observed for agglutination microscopically. A paper presented by the Red Cross reported their experience with 10,000 donors. They found the test to be as sensitive as complement fixation in the evaluation of 120 unknown samples from the National Research Council Center. Others have reported problems in sensitivity and specificity.¹¹

Hemagglutination Inhibition

Purified HAA is coated onto normal human red cells. When exposed to anti-HAA, they agglutinate. To test for HAA, the sample is incubated with the antiscrum. The antigen coated cells are added. If the unknown serum contains HAA, it will combine with the anti-HAA and inhibit the agglutination of the coated cells. The cost of the test is high. Purified HAA is scarce. The New York Blood Center has automated this method under Dr. Prince's direction. He considers it highly specific and 1,000 times more sensitive than immunoelectrophoresis.¹¹

Radioimmunoassay (RIA)

This technique is the most sensitive developed and has recently been applied to donor screening in blood banks. Scrum is added to a tube coated with hepatitis antibody (produced in guinea pigs) and incubated for 16 hours. If antigen is present, it binds to the antibody. I-125 labelled hepatitis antibody is then added and is fixed to the previously bound antigen. The radio activity is then measured.*

The test was licensed by the FDA in July, 1972, with the comment, "This new method is approximately 100 times more sensitive then existing procedures and the introduction of this technique into general use should more than double the detection of blood, plasma, or serum units harboring hepatitis virus."

There are some features of this testing method which require further investigation. The sensitivity of the test is excellent, although the specificity is questioned. The reported number of false positive results are attributed to antibodies against guinea pig protein rather than against hepatitis virus. No false negative tests have been reported. The length of time required to complete the test, over 24 hours, delays availability of whole blood and components, which could raise a serious problem in emergency or unusual demand situations.

The Blood Bank of Hawaii uses the RIA test for screening of all donor units.

Ultracentrifugation, electronmicroscopic, immunofluorescent

These methods are presently reserved for the research laboratory.

30,000 CASES A YEAR

It is estimated that 30,000 cases of post-transfusion hepatitis with 1500-3000 deaths occur yearly in the United States. The reporting is incomplete and the incidence of subclinical cases to

* Austria-125 enclosure. Abbott laboratories, Radio Pharmaceutical Division, Oct. 1972.

overt disease may be as high as 5:1.⁹ The incidence of HAA and of post-transfusion hepatitis has been shown to vary with geographic location and with blood donor populations.¹⁰ Many have observed the difference in numbers of positive HAA units from commercial populations and volunteer donors (Table 1).

TABLE 1.—Risk of hepatitis from various sources of blood.

DONOR SOURCE	AVERAGE NO. TRANSFUSIONS	NUMBER OF HEPATITIS CASES	%
1. red cross volunteers	7.4	10/715	1.4
2. other volunteers	6.4	6/354	1.7
3. paid, live donor	6.3	13/396	3.3
4. paid, prebottled	4.9	33/625	5.3
Mixed sources 1,2,3, but not 4	9.3	35/1550	2.3
Mixed sources, 4 and either 1,2,3	8.1	57/1314	4.3

The highest occurrence of HAA and hepatitis is seen in drug users, institutionalized children and prison inmates. There is good correlation between the incidence of HAA and the development of post-transfusion hepatitis. Hepatitis will develop in 50-75% of patients receiving HAA positive blood, although it may be anicteric.

Gocke took infectious plasma which had been frozen for years and could induce antigenemia in a concentration injected which was one-millionth of that detected by their methods. Clinical disease occurred with inoculation of higher titers, although the concentration then was still as little as 1/1000 of that detected.⁴ Conversely, up to a third of post-transfusion hepatitis occurs in the absence of antigen in the blood. Factors which influence this are:

1. sensitivity of the test
2. transient appearance of HAA
3. existence of a hepatitis virus (subgroup C) with antigenic determinants which cannot be detected by antisera employed.

There is an increasing risk of hepatitis with the number of units of blood and plasma administered. Also there is a greater risk from components prepared from pooled donor plasma.⁷ The figures in Table 2 are taken from a report given by Dr. Taswell, summarizing the findings from a national post-transfusion study involving 14 centers and over 5000 patients.

TABLE 2.—Comparative risk from blood, pooled plasma, and fibrinogen.

	BLOOD TRANSFUSED	OVERT HEPATITIS	FATAL
Blood	7.4 units	140/4984 (3%)	5 (0.1%)
Pooled plasma + Fibrinogen	9.2 units	12/36 (9%)	0
	19.2 units	15/80 (19%)	3 (4%)

The incidence of post-transfusion hepatitis following administration of fibrinogen has been reported as from 31-42%. The overall incidence of post-transfusion hepatitis is 2.5%. None has been reported following the administration of frozen blood. Methods of decreasing post-transfusion hepatitis include:

1. Donor selection. Avoid the known high-risk groups.
2. HAA testing. With RIA virtually 100% of + HAA bloods are detected.
3. Careful followup and reporting of post-transfusion hepatitis cases to the blood bank.
4. Encourage discretion in the use of blood and blood products.

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Medical Care Quality Accountability: An Approach to Quality Control

ALEXANDER S. ANDERSON, M.D.,* and
MAX G. BOTTICELLI, M.D., *Honolulu*

HOW DOES one define a good hospital, clinic, medical school, nurse, pharmacist, administrator, or physician? With enough time and energy it might be possible to develop an elaborate set of values by which to measure quality in these individuals and institutions. But in the end, we submit, one single criterion would prove to be sufficient: Is the individual or the institution capable of critical self-evaluation? If he, she, or they can measure themselves against standards describing what it is they want to accomplish, then quality will be assured.

This is the principle upon which the concept of peer review, Hawaiian-style, has been built. We would like to present to you today the history of how it happened, describe the process as it has evolved, and then let representatives of the four major hospitals give you some first-hand information on what impact it has had on their hospitals.

In 1967 the Hawaii Medical Association sponsored a preliminary survey conducted by Dr. Paul Sanazaro of the quality of health care in Hawaii. As a result of that survey a more comprehensive study was initiated in 1970, conducted by Dr. Beverly Payne of the University of Michigan. It has become known as the HMA/Payne Study. The study encompassed several parameters:

1. *An Episode of Illness Study* consisting of a review of the performance of health care delivered in all acute care general hospitals throughout the State. In this study over 3,000 clinical records were reviewed to determine whether the criteria for optimal care of patients with 16 diseases had been met. These criteria had been established prior to the audit by panels of Hawaii physicians.

2. *An Ambulatory Care Study* which utilized a similar approach for an estimate of the quality of care given to patients with seven health problems commonly encountered by physicians in their offices.
3. *A Study of Organizational Problems* encountered in six hospitals in the State. This was developed by the Center for Research on Utilization of Scientific Knowledge of the University of Michigan. A questionnaire was developed which measured what different health professionals perceived as being the level of quality of care as well as ease of communication and interpersonal relationships existing within their hospitals.

The results of these studies were discussed at feedback seminars which were attended by "key hospital personnel" of each of four hospitals. Two of the hospitals studied had no such seminars and served as control hospitals. One year after the original study, the process was repeated to see if any change had occurred.

After the initial feedback seminars, the National Center for Health Services Research and Development asked the Hawaii Medical Association to consider establishing an Experimental Medical Care Review Organization (EMCRO). These organizations were being developed to implement quality review within their respective regions. The Hawaii Medical Association applied for and received a grant for the establishment of such an EMCRO; and thus an opportunity arose to develop a peer review mechanism that would be ongoing.

During the feedback seminars which dealt with the results of the HMA/Payne Study we received a few definite suggestions as to what we could do with the study! Most of the criticism, however, was constructive and as a result we have modified the approach taken in the HMA/Payne Study to some degree. We think the process is evolving in

Read before the University of Southern California Refresher Course, Honolulu.

* Project Director, EMCRO Hawaii.

a progressive way so we are better at what we are doing today than one year ago.

TABLE 1.—*Acute bronchitis in adults—percent of criterion items met.*

CRITERIA ITEMS	PREVIOUS STUDY	PRESENT STUDY
Indications for admission	64%	93%
History: Indications for admission	69%	93%
Laboratory: Culture sputum	31%	67%
X-ray: Chest x-ray	69%	80%
Therapy: Antibiotics	85%	67%

The data noted in Table 1 were gathered from a chart audit at one of the large general hospitals in Honolulu. The staff of that hospital set criteria for the management of bronchitis in hospitalized adults. They included criteria for appropriateness of admission to the hospital, certain items which should be recorded in the history, laboratory procedures which should be done, x-ray procedures, and therapy. When the records of patients with this diagnosis over a three-month interval were reviewed, we found the percentages presented in the left column. 64% of the charts reviewed gave one or more of the indications for admission. Conversely, 36% of those patients could be said to be using hospital beds unnecessarily. Of those patients admitted for the diagnosis of acute bronchitis, only 31% had recorded evidence of sputum culture. 69% had chest x-rays and 85% were on antibiotic therapy.

Six months later the percentages in the right column were found on subsequent audit.

What happened in the interval? The results of the first chart review were presented at the Department of Medicine weekly staff meeting. There was discussion about the acceptability of the criteria, whose they were, and why they should be imposed. There was identification of some items that the staff felt appropriate to review. There was discussion about the appropriate use of the diagnosis of bronchitis. There was discussion about whether patients with that diagnosis should be in the hospital. There was discussion as to whether these patients were admitted with a diagnosis of pneumonia and a subsequent x-ray was negative, resulting in a discharge diagnosis of bronchitis. It was questioned whether the definitive chest x-ray should have been taken before admission. There was discussion about the use of sputum cultures and sensitivities in the selection of antibiotics for infectious diseases. I think we see the evidence of the changes which resulted.

The essence of the Hawaii EMCRO Study can be gained from this example of medical audit as an educational tool. We continue to emphasize quality rather than cost, education rather than

punishment, and change rather than data collection.

The objectives of the Hawaii EMCRO are as follows:

1. To provide consultation and technical staff assistance for continuous hospital based medical care review.
2. To develop the procedures and the technical methodology for effective review of the quality of outpatient care, and
3. To provide a continuing system of interval feedback on the quality of both ambulatory and hospital care.

This first objective is achieved by working directly with the medical staff in development of appropriate standards for review of care and with the administrative staff of the participating hospitals by providing training in the collection of medical audit information, helping them with the interpretation of those data, and assisting in any special studies that they would like to undertake.

Objective 2 is being achieved by the development and use of ambulatory record abstracts, an abstract based upon pre-established performance criteria in office or clinic care.

We are also developing local processing of those performance data and means by which review can take place in appropriate peer groups.

And then, finally, our continuing education objective is met through special feedback tutorials, conferences conducted within the hospital, seminars sponsored by the Hawaii Medical Association and at meetings of the professional societies in the State.

The steps in our process are:

1. Peer groups meet to set the criteria for optimum management of diseases.
2. After these criteria have been set, distributed and discussed, we ask the hospital departments and specialty societies to set performance goals for themselves.
3. Charts are audited to determine whether or not the criteria have been met. The data are analyzed to compare the actual performance with the desired performance goals.
4. Peers review the data, make their own judgments, identify problems and action steps which will get them from one point in performance to another.

Who sets the criteria for review? In Hawaii the criteria are developed by peer groups of physicians who practice in this State. For any one given diagnosis, we have representation from all generalists and specialists who manage patients with that diagnosis.

When appropriate, special resources are invited to join the physician panels. For example,

the stroke panel invited a physiatrist and a neurologist from Tripler Army Hospital. Members of the University of Hawaii faculty of medicine participate in some criteria panels. Recently, nurses who manage patients in a gout clinic were asked to join the physicians to set criteria for review of outpatient care. Our definition of peer group is gradually broadening.

Who audits the records? We don't believe we can ask physicians to devote one to four hours a week on quality control. We think we can ask them to give one hour a month. We believe only the physician and his "peers" can set the criteria. We believe the physicians and his "peers" should look at performance data and identify what needs to change. But well-trained clinical record abstractors and medical record librarians should do the rest of the work.

We are fortunate to have well-trained medical record librarians in the major hospitals in Honolulu. We are in the process of giving programs so that they understand what the various criteria items mean. We have on our EMCRO staff two full-time health record analysts who are responsible for training others to perform rapid, accurate abstracts for hospital and outpatient charts.

Our hospital data are processed by the Commission on Professional and Hospital Activities at Ann Arbor, Michigan. We have developed tie-in abstracts to the standard PAS abstract to gather our review data.

Finally, I think the most important part of our program is how we use the data. Feedback is provided through special hospital seminars. Trustees, administrators, medical staff, nursing staff, medical record librarians participate so that the hospital as a unit is invited to review the performance data. Trustees are involved because of their legal responsibility for the quality of care that is given in that institution. Although this may be in part delegated to the staff, it is their responsibility to see that budget, time, and facilities are provided so that quality control can be achieved.

These seminars are meant to be problem-solving meetings and in order to solve problems they first have to be identified. For instance, if we were to find that spinal fluid examination is not done frequently enough in patients discharged with a diagnosis of cerebrovascular accident, it might be the result of the lack of physician knowledge or skill but it might also be the result of hospital inefficiencies. The problems are obviously different in each instance and require very different solutions.

It becomes obvious during these problem-solving meetings that not all the difficulties with the health care system result from physician intransigence. Incredible inefficiencies exist, which are not under the control of the physician, and which interfere with his part of patient care. These inefficiencies are administrative as well as nursing and janitorial. It also becomes obvious that physicians are not the only intransigent humans on earth, and that hospital administrators are as protective of their territorial prerogatives as other health professionals. The educational impact, then, has to be broader than one just on physicians in order to insure that proper change will take place.

As we are just into our first round of review of data as an EMCRO, an evaluation of the program is necessarily subjective. But several observations seem worthwhile making. First, physician acceptance has been good, although many see us as a "necessary evil." To them we are somewhat like Italian mistresses. Luigi Barzini tells about a Milanese manufacturer who had a stormy time with his wife when she discovered he had a young mistress. Things got especially bad, when one night at La Scala, his wife saw the mistress sitting in a box wearing expensive furs and jewelry. "Don't be stuffy, darling," he pleaded. "Everybody in my position has a mistress. Even my partner; his girl is sitting two boxes beyond mine." His wife viewed the other woman with disgust: "What a choice! Vulgar, dressed in bad taste, loaded with cheap jewelry and not pretty at all. . . ." Then she added with pride "Ours is so much better."

Secondly, we are beginning to make inroads into the prejudices which all of us harbor about being spied upon. This, again, is a subjective feeling on our part: but we think the number of health professionals who accept peer review as an excellent educational tool is increasing and the number who view it as a "necessary evil" is decreasing. Thirdly, we have become much more adept at developing criteria. This, we think, has occurred as we began to view the criteria as educational tools rather than absolute descriptions of optimal care which has to be delivered to every patient with that particular disease. Each criterion should measure group performance rather than ferret out bad guys.

Fourthly, and most importantly, peer review is in Hawaii to stay. It has achieved *kamaaina* status. This is a source of pride to the EMCRO staff, the Hawaii Medical Association, and, we hope, to Paul Sanazaro and Beverly Payne.

Presidential Address

*Presented at the 117th Annual Meeting
of the Hawaii Medical Association,
May 4, 1973.*

WILLIAM E. IACONETTI, M.D., *Wailuku*

This is the end of my term as your President. It has been an exciting year and one that I will remember always, but for the moment at least, I am glad that I can turn the office over to another.

Some wise man once said that the past is a mirror of the future, and if we can interpret the image, it is simple to foretell those things yet to come, and tonight I would like to speculate a bit to see how close we can come to predicting our course in the future.

It is not too difficult to predict some of the scientific things of the future. We are reasonably certain that organ transplant procedures will be perfected and that the immune reactions will be better controlled. Birth defects can be averted through the diagnosis and correction of genetic disorders before birth, and there is some talk of the scary prospect of cloning that I don't relish particularly. For the benefit of those that aren't familiar with the term, "cloning" is the process of regenerating a complete individual from a single parent cell—it's a form of non-sexual reproduction. It holds no particular appeal. The conquest of cancer is getting closer. One way to assure yourself of longevity is the careful selection of ancestors. This may come about through the developing field of genetic engineering.

But tonight I am concerned not about the science of medicine and its technical capabilities, but rather about the practitioner of that art. What is his future? How does he fit into the picture of the political, economic, and social patterns that are showing their faces in the mirror? Let us look!

About thirty years ago, give or take a little, the Wagner-Murray-Dingell bill was presented to Congress. This was the first proposal for national health insurance. It just might interest you to know that we already have gone considerably further than those gentlemen ever thought we would, and today their bill would be considered

the acme of conservatism. I mention this only to emphasize that we have come a long, long way in that brief time.

Today we make out forms. Medicare, Medicaid, OCHAMPUS, VA, HMSA, Foundation, Workmen's Comp., Children's Bureau, Insurance, TDI, sick leave, and on and on *ad infinitum*. In fact, it is apparent that one of the lacks in medical school is a course in "how to fill out the form." We are faced with computers. Did you ever try to argue with one? I don't recommend it—you can't win!

But, back to the mirror! Jules Verne predicted the atomic submarine. The Buck Rogers comic strip predicted our astronauts and space travel. So I guess it isn't entirely improper if we attempt to predict a little. Looking then into the mirror, the physician of the future will be faced with an ever-increasing load of form-filling and reliance upon computers, hopefully to conserve more time for the practice of the art of medicine.

History tends to repeat itself. Some years ago we were trying to phase out "plantation medicine" because of its various shortcomings. Well, it is pretty well gone here in the islands, but up pops the HMO concept as a brand new idea on the mainland. Well, what do you know—all the essentials of plantation medicine all over again, with a few fringe benefits thrown in for seasoning! I guess the old saw about new ideas being rare is probably correct.

We remember the gradual close-out of midwives, the curtailing of medical practice by barbers, and the elimination of the herb doctor in favor of the trained physician. Well, now we are coming to the physician's assistant, the acupuncturist and other allied health practitioners to augment the physician's capability. Please don't get me wrong—I'm not objecting to all of this—I am simply pointing out the turn of the wheel.

Good, bad, or indifferent, the politicians and social scientists are working hard to remake the world—including ours. The delivery of health care services has become target number one and the medical profession is in the direct line of attack. The goal apparently is not better care for the patient—it appears to be control of the health delivery system.

What is the process and how does it work? What is its end result?

Throughout history we can safely say that the thrust of government has been directed toward the improvement of the standard of living of its citizenry, and the future holds the same promise, especially in the area of health care.

As more pressures are brought by government and the public for some renovation of our health care delivery system we find ourselves faced with a dilemma. It doesn't matter whether we want to or not, but we either demonstrate our capability of improving the delivery of services to the public in a reasonable fashion, or we will find ourselves doing it the government's way. It is obvious that in order to improve the health care delivery system we must improve the accessibility and availability of health care and this is based upon the financial capability to pay for these improved services. The questions seem to be, "should financial barriers to health care be removed or lowered, and if so how?", "is social policy to be concerned solely with removing the financial barrier?" It is very difficult to help people pay their medical bills without changing the way medical care is given and paid for.

Even more basic is the question "Is the primary concern of social policy with health services or with health itself?"

If we are to demonstrate our ability to improve the delivery of necessary services, then we must identify those agents that can affect these changes. Three possibilities suggest themselves in our mirror: (1) the medical profession itself; (2) those administering hospitals, now quasi-public bodies; and (3) staffs of local and state health departments.

This seems like the devil's own choice because obviously the government and the public don't want the doctors to have much to say about it, but I for one haven't much confidence in any but ourselves to come up with a solution. I sometimes wonder if we aren't seeking a solution to which there is no problem.

We are charged with having a non-system of health care delivery. If by this is meant that we are in a health crisis because we do not have a sound universal system for financing comprehensive care of high quality, then perhaps the charge is true. Then we can assume that the name of the game is dollars. Is not the concern really the financial ability to pay for health care, rather than the health care system?

Modern mobility of people has abolished boundaries as we once knew them. City, county, and even state boundaries have become fictitious in health planning and implementation.

The economic, social, and political considerations of all this will have a profound effect on the practicing physician—we need to project ourselves a bit into the future to anticipate the course we must chart.

Regional health and hospital councils with authority and responsibility for setting standards may lead the way toward the arbitrary setting of criteria for quality care. We can visualize the application of such criteria that will be used to measure the effectiveness of a physician by his computer printout. We can even project to the day that computers will be specialized—one considered best for metabolic diseases and another best for orthopedics. The physician will be surrounded by allied health personnel, feeding him data upon which will be based some decision for definitive action. Patients will no longer be people—they will be problems!

Our historical mirror has long portrayed the physician as a man of compassion. This image is a reflection of the mysterious quality called the art of medicine. This is very real and valuable in the relationship of the physician and his patient.

The only trouble is, it is almost impossible to measure this art in terms of dollars. In our socioeconomic-political society, if you can't measure it in money it isn't there!

In spite of the fact that the concern seems to be financial, one cannot overemphasize one very important ingredient of medical care which must always be retained: the art of medicine.

I see our future doctor surrounded by computers, operated by allied health workers, skilled in their tasks, feeding information to our compatriot who in turn makes the decisions as to the course to follow for the patient. The test-tube patient of the future will conform to the pattern of the science to which he is subjected.

The fiber of our profession, quality of care, is at stake. Whether we professionals assume the leadership posture or relinquish it to the planners through the hospitals or other health agencies will determine the course of medicine of the future. Some developments will be a natural result of the growth of scientific knowledge and will be welcomed. Others, if left to the socio-political-economic planners, may well be capable of stifling the application of effective delivery of services.

The probability of centralization of services for highly specialized procedures such as organ transplants, open heart surgery, complex rehabilitative activities, genetic engineering, etc., is very great. This centralization of services must be determined by the medical need if it is to serve effectively. Let us look back again—we all can recall when certain

medical centers became the fountain heads of surgical procedures of a highly special nature—Dr. DeBakey at Baylor in his pioneering open heart surgery—years ago the great Mayo Center at Rochester, Minnesota—now we find these things becoming more and more decentralized and more available to people throughout the land.

This is the pattern of performance through professional direction. Experiment, develop, educate, and distribute the skills. This is the pattern that has produced our growth of knowledge. It is expansionist in philosophy and nonrestrictive by nature.

Political planning, on the other hand, must by its very nature hold in check the relinquishment of authority and responsibility. The growth of professional capability is secondary to organization. It requires a bureaucratic monetary policy that feeds the machine rather than the need. Examples of this are plentiful. The Canadians found that their hospital plan resulted in the gradual depreciation of the physical plants because of budgetary considerations. The National Health Service of England is controlled entirely by the cost factor—to the government—not the people.

Hospital leadership, too, poses some problems. Recently the Illinois Supreme Court held that the hospital administration was responsible for the conduct of the medical staff. Final responsibility was placed with the lay board, to whom the medical staff must report through the president. Chief of Staff, medical staff committees, clinical chairmen are to be appointed by the Board of Trustees.

The road taken if hospital management assumes leadership cannot be greatly different from political domination. The path may not be exactly the same but it will be a close parallel.

Are there some answers? Perhaps!

We in Hawaii have tried to penetrate some of the perimeters of the reorganization problems.

We embarked on the EMCRO project to try to evaluate our performance. This has been quite a voyage but now that the objective port is in view, others want the helm and the job of unloading and marketing the cargo. Implementation of the project findings by the profession is not acceptable to the planners. But the medical profession must not relinquish this helm, and we are not through fighting for it.

As with everything else, the whole is made up of little particles. No matter how sophisticated the research that will feed back to you the tools with which you can serve the patient, your relationship with the patient is the ultimate particle of the foundation of medical care.

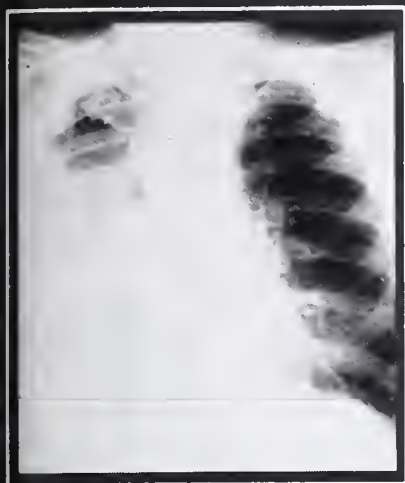
In delivering this care, the physician cannot be an isolated individual. Although the whole structure of medical care cannot exist without the physician, the physician cannot function without the structure.

It is because the physician-patient relationship is the ultimate particle in this structure that the medical profession must direct the function of the structure toward professional development rather than relinquish this to the planners, whose concern seems directed more to the structure than to its function.

I started out to treat the topic of the future with some degree of lightness. As I got into it I found it to be a bit heavy and my spirit of fun became a bit jaundiced. If I have sounded like a prophet of doom, please forgive me, because in reality I know that working together we can and will enjoy a professional future that will be satisfying to us and productive for our patients.

Again, thank you for the privilege of being your President. It has been most educational. I know you will give the same talented, tireless, excellent support to the incoming officers that you have given me.

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Acupuncture: an Experimental Medical Treatment Modality

The excitement over acupuncture has led to the ridiculous attitude that its performance is a separate profession which might well be licensed apart from the practice of medicine, like chiropractic, or massage.

The inherent absurdity of this lies in the fact that it is used on sick people, and only someone sufficiently skilled to know what is the matter should be permitted by law to use acupuncture on such a person.

The Federal Register for March 9 publishes the forthright Food and Drug Administration regulations for labeling of acupuncture devices, in part as follows:

"... the [FDA] will regard as misbranded any acupuncture device shipped in interstate com-

merce if the following does not appear in the labeling: ... 'Caution: Experimental device limited to investigational use by or under the direct supervision of a licensed medical or dental practitioner ... to be used only with informed consent under conditions designed to protect the patient as a research subject ... and where conditions for such use are in accordance with State law.'

Acupuncture obviously deserves properly planned experimental trials, and it may have merits extending beyond the obvious one of supplementing and reinforcing hypnosis. But it would be tragic if it were allowed to develop into a pseudo-profession apart from the practice of medicine or dentistry.

HLA

Vale Atque Ave, Dr. Reppun!

Fred Reppun, whose lively column in behalf of the Hawaii Academy of Family Physicians has graced the pages of this publication for the past 12 years, has been deprived of his rostrum because of the necessity to reduce expenses of the *Journal*. He explains it in his final column, in this issue.

But you will still be hearing from him, if at less length, from time to time. As a member of the As-

sociation, and even more as a contributing editor, the editorial pages are still open to him. So when you see something signed with the initials J.I.F.R., please be aware that you're hearing from Fred Reppun, if his inimitably vigorous style hasn't already made it obvious.

HLA

Come Back, Northwest Medicine!

Northwest Medicine, the 71-year-old state medical journal serving three states—Washington, Oregon and Idaho—discontinued publication in March for lack of sufficient advertising support.

The preservation and promotion of the good qualities—there *are* some—which distinguish man from lower animals would seem to be a highly desirable enterprise. One of those good qualities peculiar to man is the communication of facts and ideas, in writing, and the preservation of historical records.

It would be difficult and might be impossible to counter the charge that there are too many medical publications in existence, but *no* good state medical journal ought to be numbered among the superfluous ones.

As a forum through which physicians can report useful and instructive observations to their colleagues who practice in the same area; as an archives and repository for the history of the state

medical organization; and as a medium for educating and influencing the opinions of physicians, laymen, and legislators, state medical journals perform an indispensable function.

We are all diminished by the demise of this, one of the five or six best and most influential medical journals in the United States. How three state medical societies could permit it to die is difficult to understand. Dr. Herbert Hartley, promoted from Assistant Editor to Editor in 1951, is one of the most respected medical editors in our country, and his silencing is a real loss to medicine.

We implore our colleagues in the Pacific Northwest to reconsider this unfortunate action, and to revive their publication and rehire their editor, and get back into the business of communicating medical knowledge to one another through the medium of their own journal, *Northwest Medicine*.

HLA

Hawaii Academy of Family Physicians



... Finis

The Hawaii Medical Association has gone the route of the fiscal policies of the State of Hawaii, and of the United States of America. The HMA has projected a deficit budget by some \$50,000 for 1974.

There is hope, however, that this huge deficit may be pared (the State of Hawaii has just reduced its estimated deficit by \$31 million to a level of \$24 million by sleight of budgetary hand!).

The HMA House of Delegates, in its wisdom during the recent annual meeting, delegated both the formulation of the 1974 budget and the establishment of a dues increase (with the ceiling of increase set at \$65) to cope with increased expenses of operation, to its Council to determine in the fall of 1973. The nearer approach at that time to calendar 1974 should permit of a more realistic budget prediction; revenues, hopefully, may be higher than now foreseen.

Our treasurer, and our finance committee, will undoubtedly scrutinize the expense columns with a jaundiced eye (we hope their vision is J1 in spite of the icterus!). The Council has also been mandated to exercise frugality—the idea being to have the “tax” fit the budget, and NOT vice-versa!

In view of the House of Delegates' authorization to levy an immediate assessment of \$27 on every active member of the HMA to cover the expected deficit in 1973 alone, it is to be hoped that the Council, this fall, will see its way clear to establishing dues for 1974 considerably below the allowed total of \$205 per member (currently \$140, plus the \$65 increase = \$205).

In the course of the search for paring of expenses, it was determined that the *Hawaii Medical Journal* too must reduce its cost of operation/publication.

The House of Delegates, in its infinite wisdom again, authorized the elimination of this editorial page as an expendable item—unless the Hawaii Chapter wishes to pay for it. It costs some \$40 per issue.

We can unequivocally assure our readers, of which there may not be more than a very few and faithful, that the Hawaii Academy of Family Physicians doesn't have that kind of money.

Therefore *sic exit gloria mediarum*

With apologies,

J. I. Frederick Reppun, MD

New Members

HAWAII MEDICAL JOURNAL



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Queen's Medical Center
1301 Punchbowl Street
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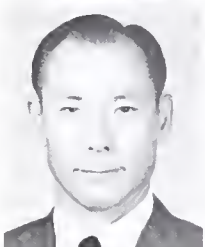
Vincent S. Aoki, M.D.
1441 Kapiolani Blvd.
Honolulu, Hawaii 96815
INTERNAL MEDICINE



Harri L. Davies, M.D.
Honokaa Infirmary
Honokaa, Hawaii 96727
GENERAL PRACTICE



Donald C. Fancher, M.D.
1301 Punchbowl Street
Honolulu, Hawaii 96813
GENERAL PRACTICE



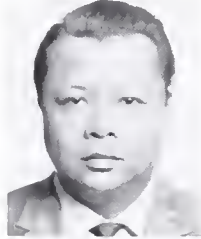
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2260 Liliha Street
Honolulu, Hawaii 96817
GENERAL SURGERY
THORACIC



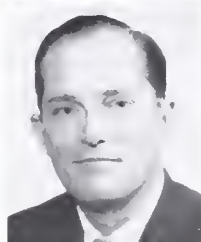
Robert Gordon Johnston, M.D.
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Kamuela, Hawaii 96743
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D.O.**
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Wailuku, Maui, Hawaii 96793
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Waimanalo, Hawaii 96795
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37 Kekaulike Street
Hilo, Hawaii 96720
PSYCHIATRY AND NEUROLOGY



George W. Monlux, Jr., M.D.
3817-A Collier Street
Schofield Barracks
SB, Hawaii 96557
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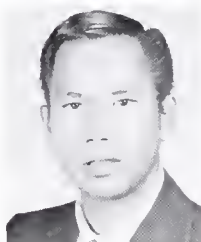
Michael Padwick, M.D.
Hilo Medical Group
P. O. Box 606
Hilo, Hawaii
GENERAL PRACTICE



Aldon N. Roat, M.D.
State Department of Health
1250 Punchbowl Street
Honolulu, Hawaii 96813
PSYCHIATRY



Johnny B. Roy, M.D.
1697 Ala Moana Blvd.
Honolulu, Hawaii 96815
UROLOGY



Wyman E. Tong, M.D.
45-939 Kam Highway
Kaneohe, Hawaii 96744
PEDIATRICS

Progress in Medical Genetics, Vol. VIII

Edited by Arthur G. Steinberg, M.D., and Alexander G. Bearn, M.D., 320 pp., \$19.50, Grune & Stratton, 1972.

THIS MOST VALUABLE SET of hard covered books have been consistent in excellence in choice of genetic material and in the authors who have presented it. Both Dr. Steinberg and Dr. Bearn are extremely good, conscientious editors, who know the topic of human medical genetics. These volumes have been turned out almost yearly since 1961, and most of the well known and more useful topics have previously been discussed.

In Volume VIII, the genetic topics are not as useful to the medical practitioner as they are to the genetic academicians. Of the seven topics discussed, only two would be of direct interest to clinicians. C. A. Clarke's "Prevention of Ph Isoimmunization" and "The Genetics of Short Stature" by Charles I. Scott, Jr., are extremely interesting and well written. They are up-to-date and have excellent bibliographies. Other topics in this volume have more specialized interest. There is something for the veterinarian, the statistician, the enzymologist, and the biochemist. Although not as practical to the clinician, these topics are well written and quite easily understood. The high standards that Steinberg and Bearn introduced in the first volume of *Progress in Medical Genetics* are maintained in volume VIII of this series.

SORRELL H. WAXMAN, M.D.

Lid Surgery

By Sidney A. Fox, M.D., 170 pp., Grune & Stratton, 1972.

THIS SHORT VOLUME on lid surgery produces little that is new in concepts of lid surgery, as included in most textbooks of this kind.

The author draws freely on various well-known techniques, evaluates them, and compares them to his own methods.

The bibliographies included at the end of each chapter seem skimpy, if one is to consider this work as the "last word" on the subject.

The illustrations are fair, but the photography is poor. The binding compares to the best.

PHILIP M. CORBOY, M.D.

★Emergency Medical Management

By Stanley Spitzer, M.D., Wilbur W. Oaks, M.D., and John H. Moyer, M.D., 475 pp., \$25.00, Grune & Stratton, 1971.

THIS BOOK is the outgrowth of a symposium on emergency medical care. It reviews cardiovascular, pulmonary, endocrine, electrolyte, neurologic, obstetrical, pediatric, surgical, and psychiatric emergencies. Each chapter is concise but thorough.

Illustrations, graphs, tables and charts are freely used, and appropriate to the text. Stressing the team approach, it is "useful to the nurse and to any physician who in his busy practice will encounter diverse emergencies from time to time." Accordingly, it should be in every medical library and available at any institution where emergency medical situations are likely to occur.

GROVER H. BATTEN, M.D.

★Blood Diseases of Infancy and Childhood, 3d Ed.

By Carl H. Smith, M.D., 874 pp., \$29.75, C. V. Mosby Co., 1972.

THIS NEW EDITION provides many recent contributions in the ever expanding field of pediatric hematology. There has been a massive increase in knowledge of the biochemical, physiological, immunological and genetic factors in blood diseases. Dr. Smith has revised an excellent text in pediatric hematology. Many references have been added to this new edition making it as valuable an encyclopedic reference source as Wintrobe's "Clinical Hematology," the classic in the field of hematology. This excellent textbook is to be highly recommended to medical students, house officers, hematologists, practitioners and pathologists.

ROBERT T. S. JIM, M.D.

★Physiology and Disorders of Hemoglobin Degradation

By Rudi Schmid, M.D., Ernest R. Jaffe, M.D., and Peter A. Miescher, M.D., 140 pp., Grune & Stratton, 1972.

THIS is a compilation of 10 papers originally published in the January and April, 1972, issues of *Seminars in Hematology*, a quarterly journal published by Grune & Stratton. These brief papers, containing much basic information, discuss essentially the physiology and abnormalities encountered in hemoglobin breakdown or degradation, documented by many references. Though compact, the book presents much new basic information on the metabolism of hemoglobin, and is recommended.

ROBERT T. S. JIM, M.D.

What Children Read in School: Critical Analysis of Primary Reading Textbooks

Edited by Sarah Goodman Zimet, 156 pp., \$6.95, Grune & Stratton, 1972.

THIS BOOK presents a series of systematic efforts to evaluate the content of first-grade readers. Its approach is multi-disciplinary and relies upon a variety of methods (content analysis, formal observation, clinical analysis, cross-cultural comparisons) in order to achieve a rounded view of the problem. The authors are all clinicians who work with children, and they are particularly interested in children who have difficulties in reading. They view content as an important contributing factor in reading retardation, and they also see it as a transmitter of cultural values and attitudes. Their studies systematically investigate substantive, motivational and attitudinal content for first grade reading textbooks. The authors find a striking divergence between the content of many first-grade readers and the appropriateness to the developmental level of most first graders. They also find striking divergence from the realities of community, family, and child life. They conclude that elementary reading textbooks in which the content holds little interest or meaning for the child tends to impede his learning to read.

The book is a valuable contribution within the limits of its purpose.

BYRON A. ELIASHOFF, M.D.

★ means highly recommended.

Life in These Parts

Charles Koch saw a "help wanted" ad placed by our State Health Dept. . . . He promptly gave up a busy California practice to settle in Kalaupapa with its 150 residents. . . . "I've always been intrigued by leprosy. It's a puzzling disease. . . ." he says and adds, "And it's quiet and peaceful here after the rat race. . . . I really like the quietness, the feeling of isolation and of refuge."

Honolulu urologists report that the "fun activity known as the bubble bath can lead to a not so funny irritation of the urethra and bladder of young children" because of the chemical agents. . . .

With the residency requirement for medical licensure dropped by a court order last May, there was a sharp rise in licenses issued, 174 last year as compared to 106 the year before. Hawaii now has one physician for every 687 people (excluding Federal doctors and military service personnel). A *Star-Bulletin* editorial states, "In light of such figures, the case for a four-year University of Hawaii Medical School cannot be based on any shortage of doctors. It must rest instead on the opportunity the school can give to local students that they would not otherwise be afforded, and on the services the school can perform for the community that are not available in any other way."

HMA exec. secretary **Tom Thorson** reports that 900 of the 1200 physicians in the State are HMA members. This means that the non-member reservoir jumped suddenly from a "hardcore nonjoiner" 125, to 300, and yet our AMA membership is up. This is a curious phenomenon because it is nearly mandatory for physicians to be HMA members to get malpractice insurance.

John Scott in his *Publisher's Notebook* describes the HMA/HNA Medical Forums sponsored by the Hawaii Newspaper Agency thus: "What makes the meetings lively is the new look in doctors. Witty, articulate, sensitive, they seem to have sprung from a combination of M*A*S*H and Medical Center." In a humorous vein, he goes on to describe the physician's waiting room: "In the doctor-patient relationship the waiting room remains a public relations problem because almost all patients have to wait. . . . The patient, however, can take the initiative in the waiting room crisis, for there is no way a doctor can solve the problem. He cannot keep a time schedule. . . . But the patient can prepare for the appointment by

taking a waiting kit. This could include a transistor radio with ear plug, late-model reading material and a thermos of coffee, prune juice, or gin, depending upon the time of day and the nature of the malady. Properly prepared, the patient can make waiting fun. Also, if you are equipped to wait, chances are you will get to see the doctor in five minutes. There is an unremitting rule, known as Aspirin's Law, that says you will wait inversely to the time you expected to wait."

Richard Armsby, former director of the Diamond Head Crisis Team, feels that an adolescent crisis team (ACT) which involves the entire family can effectively deal with most adolescent problems. ACT during a two-year period treated 233 families, mostly drug users and chronic runaways, and ended up admitting only 6% to the State Hospital Adolescent Unit as compared to the 70 to 80% usually admitted; all this without a budget and using volunteer help (including five State Hospital nurses).

The State Department of Health has been asked to draw up a set of rules to control the medical art of acupuncture by the State Senate following a resolution by **Senator Francis Wong**.

A Washington State University researcher, **Dr. R.A. Rasmussen**, announced that the Mauna Loa observatory atop the 13,000 foot volcano on Hawaii showed surprisingly high levels of pollution. **Walt Quisenberry**, State Health Dept. director, quickly announced that the State will consider starting its own program of high altitude mountain sampling. Walt says, "We may have to see whether we could confirm their results or what significance they could have for air pollution in Hawaii."

Professional Moves

In March, cardiologist **John Wagner** joined the Honolulu Medical Group; psychiatrist **Edwin Gramlich** relocated to 677 Ala Moana Blvd.; internist **Ben Leung** relocated to 181 S. Kukui; and in Hilo, internist **Kenneth Robert Hughes** located at 100 Pauahi Street. Also in March, three staff psychiatrists were appointed to the State's system of mental health clinics. **David Goldberg** was assigned to the Aiea Pearl City Mental Health Clinic, **Donald Nixon** to the Makiki Mental Health Clinic, and **Houshang Gharagozlou-Hamadani** to the Koko Head and Waikiki Mental Health Clinics.

continued page 178

when pain goes on... and on... and on—



For the patient with a terminal illness, PAIN past, present, and future can dominate his thoughts until it becomes almost an obsession. The more he is aware of the pain he is now experiencing, the more difficult it is to erase his memory of yesterday's pain, and to allay his fearful anticipation of tomorrow's pain.

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WARNINGS: *Use in children:* In infants

and **CM** dren particularly, antihistamines in overdosage may produce convulsions and death.

PRECAUTIONS: Administer with care to patients with cardiac or peripheral vascular diseases or hypertension. Until the patient's response has been determined, he should be cautioned against engaging in operations requiring alertness such as driving an automobile, operating machinery, etc. Patients receiving antihistamines should be warned against possible additive effects with CNS depressants

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We shall sorely miss immunologist **Mitsuo Yokoyama**, KMRI director since 1965, who left the islands to accept a professorship at the U of Minnesota Medical School and directorship of the Kallestad Laboratories.

With nary an April announcement, we proceed to May. Surgeon **Ignacio Torres** relocated to the Alexander Young Bldg. and **Richard Panzer** from Oregon was named staff psychiatrist for the Maui Mental Health Service.

Miscellany

A Chinaman from Hawaii was visiting San Francisco for the first time and wanted to ride the famous San Francisco ferry. En route to the waterfront, he stopped to ask directions of a gentleman dressed immaculately in white gloves, white hat, white trousers, and white shoes. "Say Mister... Where is the San Francisco ferry?" Replied the immaculate gentleman in a high pitched voice, with a limp wave of his gloved hand, "Speaking."
(Submitted by HCMS secretary, Irene Wong)

Elected, Appointed, Honored

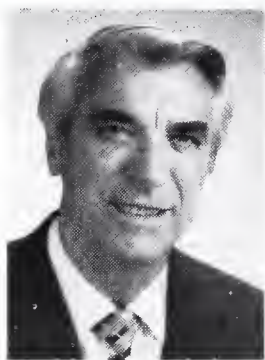
The Hawaii Medical Association elected **Tom Frissell**, president, succeeding **William Iaconetti**. It also elected **Winfred Lee**, president-elect; **Varian**

Sloan, secretary; **Grover Batten**, treasurer; **George Mills**, AMA delegate, and **Herbert Chinn**, alternate. Councillors elected are **Verne Adams**, Hawaii; **Sakae Uehara**, Maui; **Peter Kim**, Kauai; and **Douglas Bell**, **Ann Catts**, **Albert Chun-Hoon**, **Henry Oyama**, and **Patrick Walsh**, Honolulu. With the annual meeting moved along to October or November, Tom Frissell will have a 17-month tenure... (Our condolences, friend...)

Quiet, unassuming **George Goto** was named **Physician of the Year** and received the **A.H. Robins Award for Community Service**. We agree wholeheartedly with the statement of a fellow OB man: "George takes on a project, quietly does all the work that needs to be done, and sees it through, no matter how long it takes. He does all this as an inside worker without any fanfare."

Kyuro Okazaki was awarded the Fourth Class Order of the Sacred Treasure by the Emperor of Japan... **Mike Okihiro** was elected president of the Mid-Pacific Institute Alumni Association... **William John Holmes** was elected 1st Veep at the Pacific Club... **K.Y. Lum** and **Allan Richardson** were appointed to the Medical Advisory Board and **John Watson** to the Board of Hearing Aid Dealers and Fitters... John Watson was also elected secretary of the HMSA. New directors elected to the HMSA were **John Morris** and **John Krieger**. Re-elected as directors were **Alexis Burso**,

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DDS, **Mario Bautista**, and **Reginald Carvalho** . . . **Bernard Fong**, president of the United Chinese Society, and three other Chinese community leaders made a 10-day goodwill mission tour to Taiwan, sponsored by the US Army, Pacific Headquarters . . .

In Memoriam

A familiar gruff voice hailed, "Hey Hank!" jolting back memories of Queen's residency days, and there was our old chief resident, **Carl Mason**, when we emerged from a Kam Auditorium lecture. As Carl lumbered up, he looked at least 20 pounds lighter than we could recall so we complimented him on his trimness. With typical surgeon's disdain for the internist's methods, Carl grumbled, "You lose weight and that ol' ulcer acts up . . . Then, those internists treat your ulcer by stuffing you with food . . ." Then Carl's demeanor suddenly solemnized as he remembered what he had hailed us for. He said sadly, on the verge of tears, "We lost another old friend . . . Ol' **Henry Gotshalk** . . . You know he never smoked for 35 years and yet when we opened him up, he was packed solid . . . He went home and never left the house."

We recalled our peers, **Henry Gotshalk** and **Rogers Hill**, and how great the training was, and how hard we worked for such a pittance those days at Queen's . . . "I still have that picture we

took at **Andy Morgan's** house," Carl said, referring to a picture taken at a gathering of surgical residents who had trained under **Rogers Hill** . . . "Now that **Charley Judd** is back, maybe we should get together . . ." he added . . .

Personal Glimpses

We learned that **Shig Horio**, our jogging, tennis-playing, surfing physician athlete, still has enough energy to donate blood (80 pints, no less!). The Waikiki Kiwanis Club recently honored Shig and four others as outstanding donors . . .

We met **Yone Miyashiro** at the HMA meetings, but with typical modesty, he did not mention his most recent achievement . . . an ace on the 5th hole (a 183-yd. valley carry) of the Kukuiohono Golf Course on Kauai, using a 3-wood against the wind. Yone has the distinction of being only the sixth golfer to ever make an ace on the course in the 17 years of the course's existence . . .

Miscellany

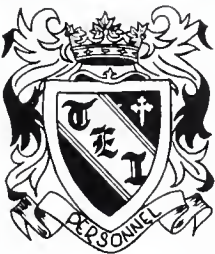
A golfer came home bone tired. His wife asked why . . . "Oh, Charlie had a heart attack on the 2nd hole." "Oh, how terrible." "Yeah! Just imagine, I had to hit the ball . . . drag Charlie . . . hit the ball . . . drag Charlie, all 16 holes . . ." (Contributed by avid golfer, **Frank Fukunaga**)

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**HMA House of Delegates
Meetings (May 1 and May 3)**

As a member of the House of Delegates, we received by mail this voluminous pamphlet entitled "Memorandum to Members of the House of Delegates." Perusing it, we were astonished at the amount of work entailed, the verbosity of committee reports and the details involved—and dreaded the thought of attending the House of Delegate meetings. Fortunately, we discovered that the actual work is done by four reference committees on the first day of the meeting, viz., the Public Health Reference Committee, chaired by **Cal Sia**, the Peer Review and Medical Services Reference Committee, chaired by **Al Chun-Hoon**, the Miscellaneous Business Reference Committee, chaired by **Doug Bell II**, and the Finance Reference Committee, chaired by **Sakae Uehara**. After studying each report, the committee adds or detracts and its amendments are then ratified on the next meeting date (a golfing Thursday afternoon). Each reference committee chairman then reads carefully mimeographed reports prepared by the HMA staff and distributed to each delegate. After each report, the chairman would say, "Mr. President, I move the adoption of this portion of the report." The HMA president then responds, "You've heard the recommendation... Is there any discussion... (Pause) Hearing none, all those in favor of adopting this portion of the report as amended say Aye... Opposed Nay..." We discovered that the poor President has to repeat this same process over and over all afternoon (56 times by our latest count).

Most of the reference committee recommendations are accepted without rebuttal, but, as usual, money matters lead to somewhat of a hassle... **Grover Batten** and his Finance Committee had gone over with a fine tooth comb every possible revenue and expense cut and had reluctantly recommended that a special membership assessment of \$27 be levied to cover the budget deficit for 1973; that Special membership dues be increased from the present one-third to one-half of the dues paid by active members; and that the dues for 1974 be increased by \$65.00/member. Grover's committee had also recommended that the Physician's Benevolent Fund (containing a dormant \$35,000) be used to form the nucleus for an investment program. When **Herb Chinn** recommended that instead of "an investment program," that it be amended to "for a building program," **Bill Goebert** wanted it amended to read, "for an investment program for the HMA." **Fred Reppun** spoke up, "I would like to speak against the amendment to the amendment," whereupon **Bill Dang** rose and said, "I speak against both amendments." (Confusing, wot?) They both lost.

The Finance Committee had also recommended

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that the annual HMA meeting date be shifted from May to the last two weeks in October or the first two weeks in November. **John Morris** recommended that it be amended to "either October or November." Grover Batten started to object to such an amendment till Tom Frissell in his infinite wisdom shushed Grover with: "Grover, the House is giving away stuff... They're giving us more time... Don't turn it down."

Through it all, President Iaconetti smiled, kept his cool and droned on: "All those in favor of the amendment to the amendment... Say Aye! (Pause) Opposed Nay!"

We concluded at the end of our first session with the House of Delegates that so long that we have these checks and balances in the rhetorical ones like the Fred Reppun's, the Bill Dang's, the Tom Frissell's, the John Morris's, the George Mills's, the Wini Lee's, the Herb Chinn's, the Grover Batten's, et al, with parliamentarian **Harry Arnold Jr.**, legal counsel **Tom Rice**, and executive director **Tom Thorson** guiding them, the HMA is in safe hands and that we are safe from any rash decisions by any overly zealous zealots...

Claude Caver's Repertoire

Have you heard about the doc that takes night calls? He gets up at the crack of dawn, stuffs it up and goes back to sleep...

Two women discussing birth control pills...

"My husband had a vasectomy so I make sure I take the pill." "But I thought you said he had a vasectomy?" "Yes, that's why I have to take every precaution."

Hear about the sequel to "Deep Throat"? It's called "Sore Throat."

Sportsmen

On the golf course, **Garth Morimoto** believes in healthy ventilation whenever he muffs a shot... and that can be quite frequent on occasion. However, we are a bit confused because we can never be sure whether he is asking God or himself to damn it, for his "God Dammit" and/or "Garth Dammit" sound alike...

DDD Golf Tournament

The Annual DDD Tournament was held on Thursday, April 26 at the Pearl Country Club. April squalls usually accompany this annual event, so as usual, we spent more time donning rain jackets and drying our hands than in actual playing. And only the hardy and lucky survived the cutoff for the limited prizes. Yet in spite of all these handicaps, 165 aspiring golfers played in the four flights, which were divided as follows: A Flight (6-12), B Flight (13-17), C Flight (18-36) and Non-Handicappers Flight.

Our hero was **Al Chun-Hoon**, who upheld the

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physicians' honor by shooting a 77-11-66 overall low net despite the inclement afternoon weather and flooded greens. In A Flight **Dick Lam** shot 80-9-71 for 4th place. In B Flight, traditional winner **Joe Nishimoto**, whose handicap never drops below 16, shot 89-16-73. **Catalino Cachero** and **Ross Hagino** shot net 74's and **Ed Matsuoka** and **Chew Mung Lum** shot net 75's. In C Flight, **Maurice Nicholson** shot 80-19-68 to win 1st place and grand slam winner **Bill Dang** shot a disappointing 95-22-73 for a 5-way tie for 3rd place. We were proud of **Francis Soon**, who has recovered from that strange affliction known as the Ball Fixation Syndrome and shot a creditable 101-25-76.

Having hacked away all afternoon in the last foursome with **Eugene Matsuyama** (who incidentally has a beautiful swing) we proceeded directly to the Kanraku Tea House where 194 showed up for the post-tournament festivities. Topless waitresses were the feature attraction and observant Henry Yim pointed out one gal in particular and whispered, "Look at her . . . A face of 25 and tits of 40." Sure enough, they sagged unceremoniously . . . Perhaps this phenomenon comes from the present no-bra trend, we observed, scientifically of course . . . **Charley Ching**, **Larry Wong** et al were among the non-golfers who came to play African golf. To top it all, Charley won a door prize and sneered at us unlucky golfers as he

went up for his prize, "Not bad for a non-golfer eh?" So we drooled . . . Our thanks go to the dentists who sponsored this year's event, for the food, the entertainment and prizes were definitely improved over previous DDD tournaments . . . Guess we'll be back again next year, despite the wind, the rain, the mud, and the agony of it all . . .

Physicians Speak Up

During the 117th Annual HMA Meetings, outgoing HMA Prexy **Bill Iaconetti** warned, "It doesn't matter whether we want to or not, but we either demonstrate our capability of improving the delivery of services to the public in a reasonable fashion, or we will find ourselves doing it the government's way . . . The fiber of our profession, and the quality of care, are at stake . . . Whether we professionals assume the leadership posture or relinquish it to the planners through the hospitals or other health agencies will determine the course of medicine of the future . . ."

AMA president-elect, **Russell Roth**, then followed and pointed out that lack of money was only one of several barriers between the community and medical care and that people must be taught to seek care when they need it. He said, "The AMA has long been engaged in public education programs—lectures, health fairs, pamphlets, approaches through the media and related cam-

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paigns, such as the one over 10 years old with the slogan: 'Use, don't abuse your health insurance.' The AMA has never held that there was anyone who did not have a right to proper medical care . . . To help in this respect, it has proposed a legislation which we call Medicredit, which would put well within the financial reach of every American, a policy of insurance or a contract for service, comprehensive in scope and affordable."

Letters to the Editor

(Excerpts therefrom)

Philip Corboy, with tongue in cheek, wrote, "It was amazing that the price paid in San Francisco for Maui weed was \$1,200 to \$1,700 a pound! That's even higher than beef filet here . . . With the efforts that are going on nationally and in our Legislature to legalize marijuana, why don't we capitalize on "Maui's golden egg" and raise it in large quantities, and perhaps the net could be used to offset the State's deficit in 1975 and give the City and counties a chance to improve their image and creativeness."

Maurice Nicholson sounded indignant: "Sir: As a taxpayer I would like to express my disappointment at the lack of fiscal responsibility exhibited by some of our legislators . . . These legislators, including our Governor, act as if they have a tax base the size of the State of California and do not face the fact that there are a very limited number of taxpayers in this State and many of us feel that we pay more than enough taxes at the present time (How true!) . . . A good example is the Law School and Medical School which will cost millions of dollars to finance . . . The average cost of a medical school in 1971 in the United States was \$16 million . . . It is very nice to have a Medical School and a Law School to add to the prestige of your University. However, in view of the fact that there is no shortage of doctors and no shortage of lawyers in the State, and there is a shortage of money, then a tax increase is needed, but obviously is not warranted to help finance two schools which are not of necessity to the State . . ."

Environmentalist **Robert Fisher** took to task a *Star-Bulletin* editorial encouraging the development of the Alaskan Pipeline as "an acceptable environmental sacrifice". He wrote: "The building of the Alaskan Pipeline as it is now conceived will be a tragic mistake . . . There is no doubt that an energy crisis is at hand yet the most sensible course would be a re-evaluation of our energy resources and how they may be more effectively utilized . . . Environmental rip-offs to benefit a few should be old hat to Hawaiians by this time. The *Star-Bulletin's* rationale that 'given Alaska's vastness and underdeveloped situation, construction of the pipeline seems an acceptable environmental sacrifice' is hardly well reasoned advocacy."

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Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (> 5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently — both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides

are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

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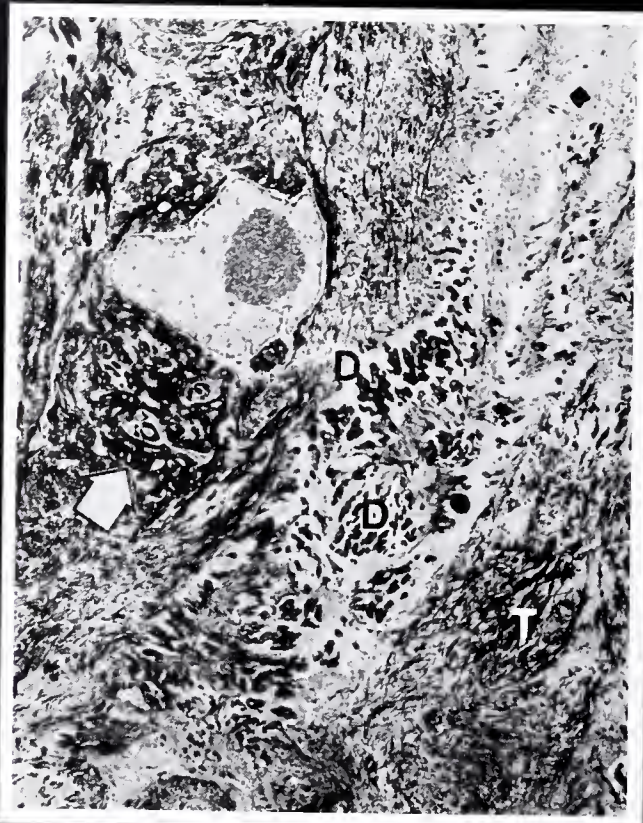
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Lesion #2—Two days after initiation of therapy. Electron micrograph of solar keratotic skin from patient's hand.

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Solar, actinic or senile keratoses

By whatever name they may be known, they commonly occur as multiple lesions and chiefly on the exposed portions of the skin. Because they may be premalignant, it is generally agreed that they should be treated. Surgery, cryotherapy, or electrodesiccation may present certain drawbacks, both for the physician and the patient, but there is Efudex® (fluorouracil)—as an alternative to conventional therapy.

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Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

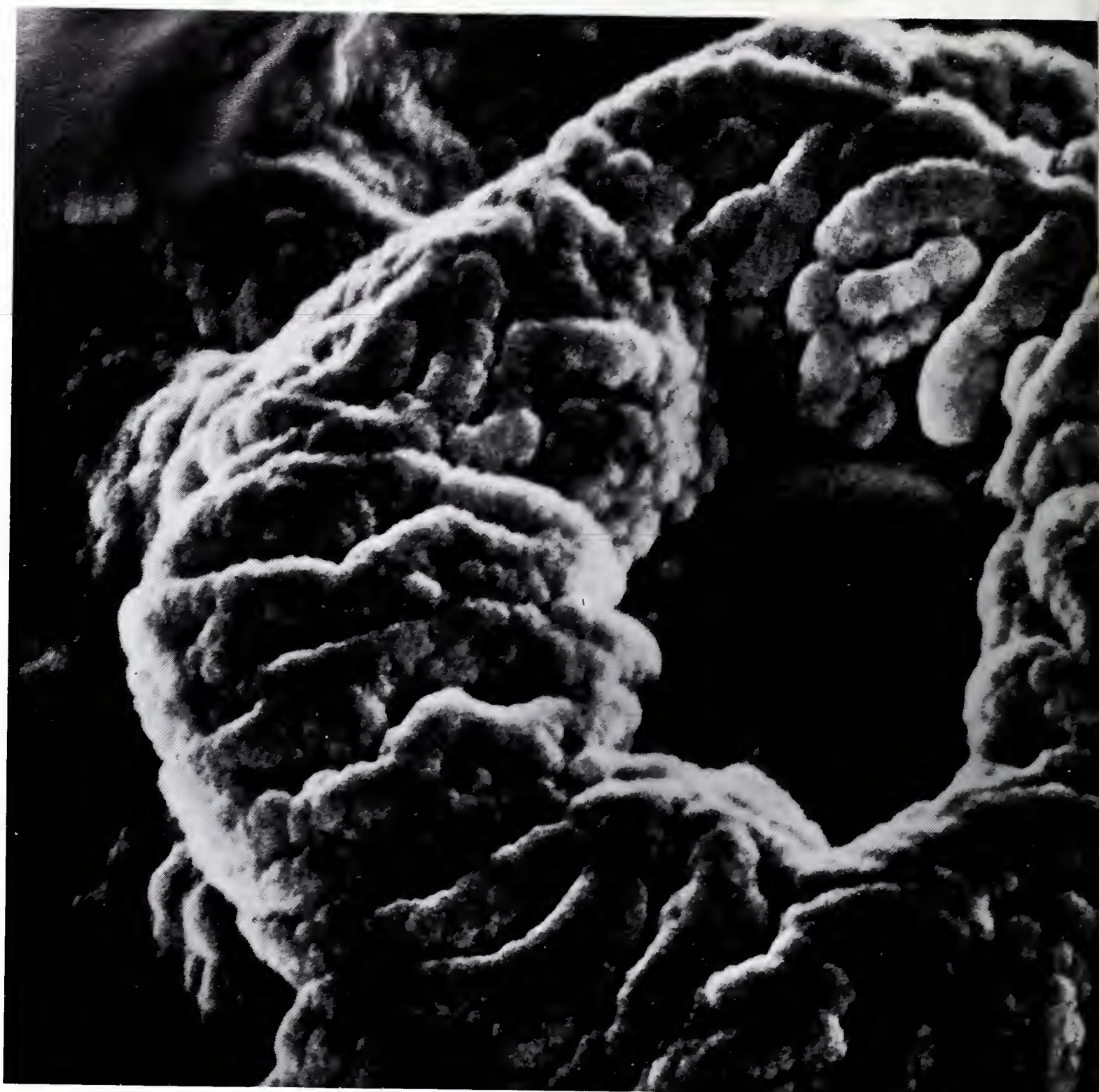
Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

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This Scanning Electron Micrograph (7000 \times) is the first 3-dimensional view of a cell in an ulcerated duodenum. The center is completely denuded, surrounded by fairly well-preserved microvilli. Shirley Siew, M.D., has pioneered in this use of SEM to reveal disease processes at the cellular level that may not be perceived with other techniques.

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Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-

prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been

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HAWAII MEDICAL JOURNAL



What should a medication for sleep be expected to provide?



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Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years

of age. Though physical and psychological dependence have not been reported at recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with

Sleep for 7 to 8 hours without need to repeat dosage during the night

No sleep medication has been as rigorously evaluated in the sleep research laboratory as Dalmane. Insomnia patients given one 30-mg capsule of Dalmane at bedtime, on average: fell asleep within 17 minutes, had fewer nighttime awakenings, spent less time awake after sleep onset, and slept for 7 to 8 hours with no need to repeat dosage during the night.

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Dalmane (flurazepam HCl) is a distinctive sleep medication—a benzo-diazepine specifically indicated for insomnia. It is not a barbiturate or methaqualone, nor is it related chemically to any other available hypnotic.

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Chronic tolerance studies have confirmed the relative safety of Dalmane; no depression of cardiac or respiratory function was noted in patients administered recommended or higher doses for as long as 90 consecutive nights. Dalmane is generally well tolerated and morning "hang-over" is relatively infrequent. Dizziness, drowsiness, lightheadedness and the like have been the side effects noted most frequently, particularly in elderly and debilitated patients. (An initial dose of Dalmane 15 mg should be prescribed for these patients.)

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(flurazepam HCl)

When restful sleep is indicated

One 30-mg capsule *h.s.*—usual adult dosage
(15 mg may suffice in some patients).

One 15-mg capsule *h.s.*—initial dosage for elderly or debilitated patients.



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ent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe dation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported.

Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech,

confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.
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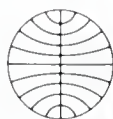
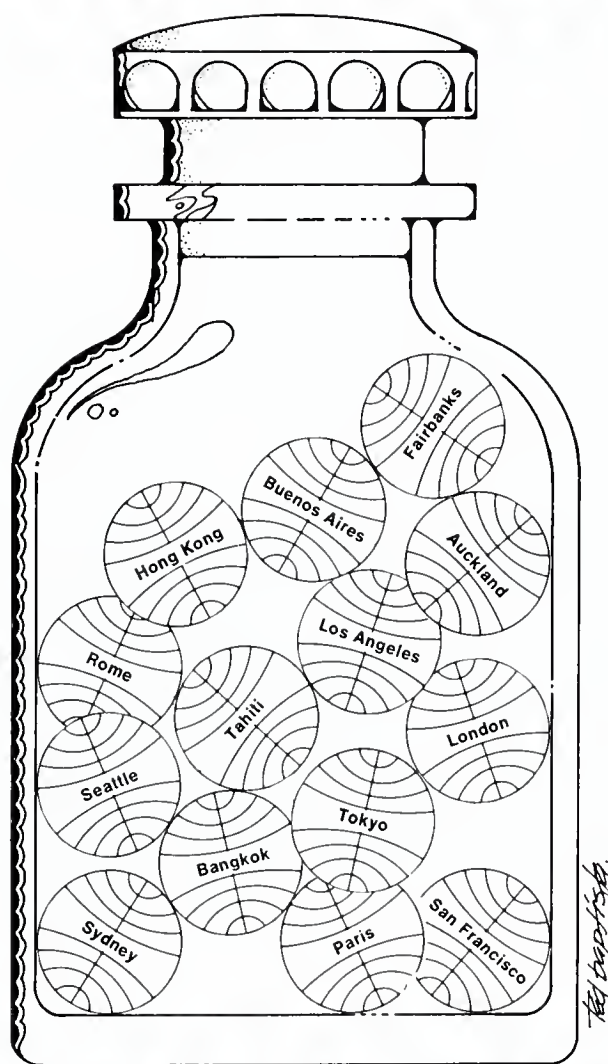
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Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (> 5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently — both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides

are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

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In psychomotor epilepsy

Recognized as especially complex phenomena, psychomotor (temporal lobe) seizures are frequently difficult to control. MYSOLINE has established an excellent record of success in controlling seizures of this nature. Millichap¹ specifically recommends the initial use of MYSOLINE for the treatment of psychomotor seizures. Chronister and Nelson² consider MYSOLINE an effective medication in the often refractory psychomotor seizures, even though complete control is not always possible in all patients. And Taylor³ classifies MYSOLINE as "particularly useful in psychomotor epilepsy."

In grand mal epilepsy

MYSOLINE has been successfully used as therapy for major motor seizures and has maintained many patients seizure-free. As a case in point, Livingston and Pruce⁴ have stated that "Mysoline is an excellent drug for the control of major seizures. . . ." Scholl⁵ concluded that MYSOLINE, used alone or in combined therapy, "is an excellent anticonvulsant" in the control of these seizures. Aird⁶ reported that MYSOLINE "is particularly effective against grand mal and temporal lobe epilepsies." And Metrick⁷, in his table on medical management of seizures, has noted that MYSOLINE "is an excellent drug for grand mal seizures but must be started at low dosage and very gradually increased."

In focal epilepsy

The Jacksonian seizure is a typical focal motor seizure, and is often difficult to treat. MYSOLINE may prove useful as initial therapy. In the opinion of Forster,⁸ many neurologists regard MYSOLINE as a valuable drug in this area.

Also useful as concomitant therapy...

When other anticonvulsants have not kept the patient adequately seizure-free, the addition of MYSOLINE to the regimen may help you achieve improved anticonvulsant control.

A double-blind comparative study by White⁹ revealed that "the drugs phenobarbital, diphenylhydantoin and primidone could be used in combination effectively to avoid side effects. The results suggested that the anticonvulsant effects of the drugs were additive and that the side effects were not." Furthermore, McNaughton and Lloyd-Smith¹⁰ reported "Primidone (Mysoline) may be used at any age alone or in combination with phenobarbital, diphenylhydantoin sodium, or both."

...or as replacement for previous therapy

When the degree of control obtained with other anticonvulsants is deemed unsatisfactory—or the medication produces side effects that force its discontinuation—MYSOLINE may be added to the regimen and eventually replace concomitant therapy after necessary dosage adjustment has been completed. This transition should be made gradually over a period of several weeks. The A.M.A. Council on Drugs¹¹ has stated that "Mysoline (primidone) ... is frequently useful in refractory epilepsies, especially of the major motor and psychomotor types," and Millichap¹² has recently said, "Its use is indicated in grand mal seizures when these are resistant to phenobarbital or to a combination of phenobarbital and diphenylhydantoin."

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BRIEF SUMMARY

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Anticonvulsant

INDICATIONS: MYSOLINE, either alone or in combination, is indicated in the control of grand mal, psychomotor, and focal epileptic seizures. It may control grand mal seizures refractory to other anticonvulsant therapy.

PRECAUTIONS: The total daily dosage should not exceed 2 Gm. Since MYSOLINE therapy generally extends over prolonged periods, a complete blood count and a sequential multiple analysis-12 (SMA-12) test should be made every six months.

Use in pregnancy: The effect of primidone on the human fetus has not been studied, and the benefit of administration of any drug during pregnancy must be weighed against any possible effect on the fetus.

Neonatal hemorrhage, with a coagulation defect resembling vitamin K deficiency, has been described in newborns whose mothers were taking MYSOLINE and other anticonvulsants. Pregnant women under anticonvulsant therapy should receive prophylactic vitamin K₁ therapy for one month prior to, and during, delivery.

In nursing mothers: There is evidence that in mothers treated with MYSOLINE, the drug appears in the milk in substantial quantities. Since tests for the presence of primidone in biological fluids are too complex to be carried out in the average clinical laboratory, it is suggested that the presence of undue somnolence and drowsiness in nursing newborns of MYSOLINE (primidone)-treated mothers be taken as an indication that nursing should be discontinued.

ADVERSE REACTIONS: The most frequently occurring early side effects are ataxia and vertigo. These tend to disappear with continued therapy, or with reduction of initial dosage. Occasionally, the following have been reported: nausea, anorexia, vomiting, fatigue, hyperirritability, emotional disturbances, diplopia, nystagmus, drowsiness, and morbilliform skin eruptions. On rare occasion, persistent or severe side effects may necessitate withdrawal of the drug. Megaloblastic anemia may occur as a rare idiosyncrasy to MYSOLINE and to other anticonvulsants. The anemia responds to folic acid, 15 mg. daily, without necessity of discontinuing medication.

DOSAGE AND ADMINISTRATION: The average adult dose is 0.75 to 1.5 Gm. per day. The initial dose is 250 mg. Increments of 250 mg. are added, usually at weekly intervals, to tolerance, or therapeutic effectiveness, up to daily doses not exceeding 2.0 Gm. A typical dosage schedule for the introduction of MYSOLINE (primidone) is as follows:



Adults and Children Over 8 Years of Age

<i>1st Week</i> 250 mg. daily at bedtime	<i>2nd Week</i> 250 mg. b.i.d.
<i>3rd Week</i> 250 mg. t.i.d.	<i>4th Week</i> 250 mg. q.i.d.

In children under 8 years of age, maintenance levels are established by a similar schedule, but at one-half the adult dosage. It is best to begin with 125 mg., with gradual weekly increases of 125 mg. a day, to a daily total usually between 500 mg. and 750 mg.

In patients already receiving other anticonvulsants: MYSOLINE (primidone) should be gradually increased as dosage of the other drug(s) is maintained or gradually decreased. This regimen should be continued until satisfactory dosage level is achieved for combination, or the other medication is completely withdrawn. When therapy with this product alone is the objective, the transition should not be completed in less than two weeks.

MYSOLINE 50 mg. Tablet can be used to practical advantage when small fractional adjustments (upward or downward) may be required, as in the following circumstances: for initiation of combination therapy; during "transfer" therapy; for added protection in periods of stress or stressful situations that are likely to precipitate seizures (menstruation, allergic episodes, holidays, etc.)

HOW SUPPLIED: MYSOLINE Tablets—No. 430—Each tablet contains 250 mg. of primidone (scored), in bottles of 100 and 1,000. Also in unit dose package of 100. No. 431—Each tablet contains 50 mg. of primidone (scored), in bottles of 100 and 500. MYSOLINE Suspension—No. 3850—Each 5 cc. (teaspoonful) contains 250 mg. of primidone, in bottles of 8 fluidounces.

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In-migration Versus Fertility as Factors In Hawaii's Population Growth

ELEANOR C. NORDYKE, R.N., M.P.H., Honolulu

The inflow of new residents is unchallenged as an important element of population growth in Hawaii. While a high birth rate has been the primary causative factor for rapid growth during the recent past, the 1970 civilian fertility ratio (children per woman of childbearing age) in Hawaii reached a low level of 2.42,¹ nearing the replacement level of 2.11. In contrast, in-migration continued to exceed out-migration, resulting in a significant increase to the population.*

A 1972 Hawaii Legislative Resolution has declared a policy of achieving population stabilization by voluntary means.² This implies that births plus in-migration should eventually equalize deaths (with consideration for the age-composition of the population plus out-migration). The fertility rate would need to drop below replacement level if net-migration continues at its present rate.

HISTORY OF IN-MIGRATION

Indigenous. The first human settlers in Hawaii are believed to have arrived by 750 A.D. from the Marquesas and Tahiti.³ These ancient Hawaiians maintained their racial characteristics, language, and customs for almost 1000 years. Since the arrival of Captain James Cook in 1778, there has been a steady transition from a simple stone-age Polynesian culture to the complex, westernized, multiracial society of today.

The population of an estimated 300,000 Hawaiians declined steeply during the 19th century due to their lack of resistance to foreign diseases, wars, famine, ancient practices of contraception

and abortion, and infertility.^{4, 5} By 1855, King Kamehameha IV reported to his legislature, "The decrease of our population is a subject in comparison with which all others sink into insignificance."³ While 80,000 native Hawaiians were living at the time of this statement, this downward trend continued to a low figure of 56,897 in 1872. Business was threatened by a shortage of labor. It was decided by the government to solicit new life and new blood for Hawaii.

Chinese. Three hundred Cantonese coolies arrived as the first group of indentured immigrants in 1852. Assimilation of this foreign culture was slow, which discouraged the promotion of further controlled immigration for a decade. However, a rapid influx of Chinese in the 1870's and 1880's provided the major source of labor for the sugar industry.

It is estimated that more than 46,000 Chinese were imported before enactment of the Chinese Exclusion Act of 1882 stopped the supply.⁶ Chinese comprised 22.6% of the island population in 1884, but with the return of many unmarried migrants to their homeland, with dilution by new migrant groups; and with intermarriage, the Chinese represented only 6.8% of Hawaii's population by 1970.⁷ (Fig. 1, Table 1).

Japanese. The largest recruitment of workers was from Japan and Okinawa. During a 40 year period of in-migration, an estimated 180,000 Japanese arrived to work and to contribute their cultural heritage to the Hawaiian life style. The Japanese Exclusion Act of 1924 halted the flow, but by this time the Japanese in Hawaii made up about 40% of the population. In 1970 Japanese represented 28% of Hawaii's people.

Filipinos. Since Filipinos were not subject to the laws which restricted Japanese and Chinese immigrants, the sugar and pineapple planters re-

From the East-West Population Institute, University of Hawaii. Received for publication October, 1972.

* Throughout this paper, "fertility" is used in the demographic sense of "actual reproductive performance, whether applied to an individual or a group," not in the medical sense of "ability to become pregnant." See editorial by Robert Schmitt in this issue.

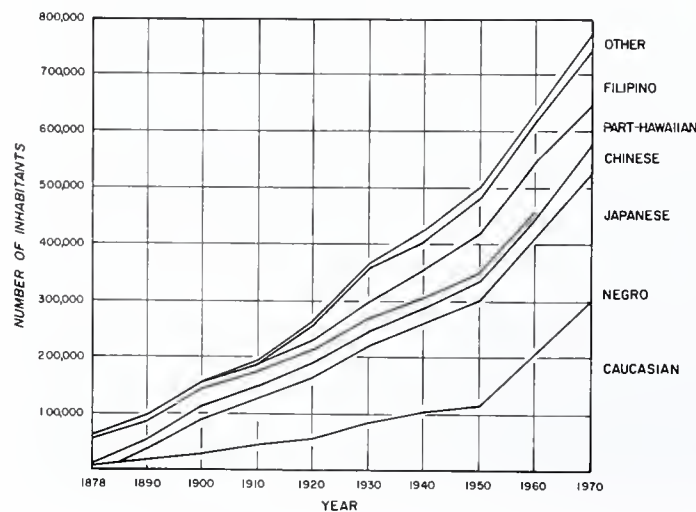
TABLE 1.—Ethnic composition of the population of Hawaii, 1900-1970.

YEAR	TOTAL	CAUCASIAN	NEGRO	JAPANESE	INDIAN	CHINESE	HAWAIIAN	PART-HAWAIIAN	FILIPINO	OTHER
Population										
1900	154,001	28,819	233	61,111	NA	25,767	29,799	7,857	NA	415
1910	191,909	44,048	695	79,675	NA	21,674	26,041	12,506	2,361	4,909
1920	255,912	54,742	348	109,274	NA	23,507	23,723	18,027	21,031	5,260
1930	368,336	80,373	563	139,631	NA	27,179	22,636	28,224	63,052	6,678
1940	423,330	103,791	255	157,905	NA	28,774	14,375	49,935	52,569	15,726
1950	499,794	114,793	2,651	184,611	NA	32,376	12,245	73,845	61,071	18,202
1960	632,772	202,230	4,943	203,455	472	38,197	10,502	91,597	69,070	12,306
1970	768,561	298,160	7,573	217,307	1,126	52,039	NA	71,375	93,915	27,066
Percentages										
1900	100.0	18.7	0.2	39.7	....	16.7	19.3	5.1	....	0.3
1910	100.0	23.0	0.4	41.5	....	11.3	13.6	6.5	1.2	2.5
1920	100.0	21.4	0.1	42.7	....	9.2	9.3	7.0	8.2	2.1
1930	100.0	21.8	0.2	37.9	....	7.4	6.1	7.7	17.1	1.8
1940	100.0	24.5	0.1	37.3	....	6.8	3.4	11.8	12.4	3.7
1950	100.0	23.0	0.5	36.9	....	6.5	2.5	14.8	12.2	3.6
1960	100.0	32.0	0.8	32.2	0.1	6.0	1.7	14.4	10.9	1.9
1970	100.0	38.8	1.0	28.3	0.1	6.8	NA	9.3	12.2	3.5
Average Annual Growth Rates (X100)										
1900-1910	2.20	4.24	10.93	2.65	....	- 1.73	- 1.35	4.65	....	24.71
1910-1920	2.88	2.17	- 6.92	3.16	....	0.81	- 0.93	3.66	21.87	0.69
1920-1930	3.64	3.84	4.81	2.45	....	1.45	- 0.47	4.48	10.98	2.39
1930-1940	1.39	2.56	- 7.92	1.23	....	0.57	- 4.54	5.71	- 1.82	8.56
1940-1950	1.66	1.01	23.41	1.56	....	1.18	- 1.60	3.91	1.50	1.46
1950-1960	2.36	5.66	6.23	0.97	....	1.65	- 1.54	2.15	1.23	- 3.91
1960-1970	1.94	3.88	4.27	0.66	8.69	3.09	....	- 2.49	3.07	7.88

NA—Not available.

cruited more than 125,000 laborers from the Tagalog, Visayan, and Ilocos provinces of the Philippines between 1906 and 1932.⁶ Many of these workers left their families behind, returning to their homeland during the depression of the early 1930's. Following World War II, plantation owners once again recruited, with offers of good wages, housing, medical care, and other benefits. A 1965 liberalization of immigration laws has markedly increased the inflow from the Philippines. This group made up 12.2% of Hawaii's 1970 population.

FIG. 1.—Population of Hawaii by ethnic group, 1878-1970.



Caucasian. The Caucasian group, originally seamen, traders, and missionaries, expanded with business and military developments. The first Portuguese contract laborers came to Hawaii in 1878 from the Azores, Madeira Islands, Cape Verde Islands, and continental Portugal. These people brought their wives and children with them and adjusted readily to the Hawaiian social and economic life. The original 17,500 immigrants gained rapidly in numbers due to high rates of fertility. The similarity of their culture and appearance to that of other Europeans and Americans reduced their separate identity as a racial group, and since 1940 the United States census has included the Portuguese as "Caucasian."

Norwegians and Germans joined the labor pool in the 1880's. Russians and Poles also arrived in limited numbers. About 8,000 Spaniards were brought from Andalusia; however, most of these people moved to California to join relatives and to earn higher wages.³ About 6,000 Puerto Ricans arrived in 1901. They have intermarried and are not tabulated as a separate ethnic group.

In 1900 the Caucasian group made up 18.7% of the population. By 1960 they had grown to 32%, and with the rapid gain of mainland migration in the last decade this ethnic group tallied 38.8% in the 1970 U.S. census.

Others. With annexation of Hawaii by the United States in 1898, the contract system for importing labor was considered illegal, although planters were permitted to continue to recruit foreign labor. Several other racial groups responded.

About 8,000 unmarried Korean men arrived in 1904-1905, followed by approximately 1,000 "picture brides." This group was tabulated at 1.1% of the State total by the U.S. census in 1970.⁸

Toward the end of the 19th century, the Bureau of Immigration was able to recruit about 2,500 islanders from widely separated areas in the Pacific to join the labor force in Hawaii; however, many of these people returned to their homeland. A large immigration from Samoa and the Trust Territory has occurred in the past decade. This group, as U.S. Nationals, enters Hawaii without quota restriction. There has been no official tabulation by the U.S. Immigration and Naturalization Service or by the U.S. census, but they were presumed to number several thousand in 1970.

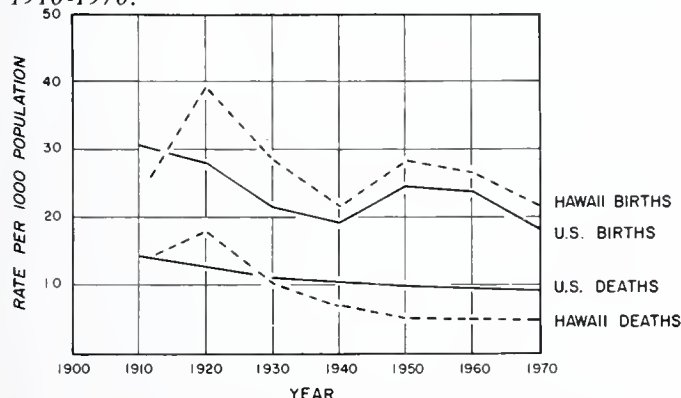
Less than 1,000 Negroes resided in Hawaii prior to 1950, and there has been a gradual increase to 7,573 in the past two decades. In 1970 they represented 1.0% of the State total.

POPULATION GROWTH, 1950-1970

A phenomenal population growth has occurred in Hawaii in the past two decades. From 499,794 inhabitants in 1950 there was an increase by 1960 of 26.6%, or an extra 132,978 persons. Another 137,141, or 22%, was added in the last ten years, giving a corrected 1970 U.S. census total of 769,913.

Natural increase. At first an increase in birth rates in the post-World War II era was responsible for much of this growth. Recently, however, there has been a steady birth decline (Fig. 2). While

FIG. 2.—Birth and death rates, Hawaii and United States, 1910-1970.



60% of the growth of civilian population in the 1960-1970 decade has been attributed to natural increase of births in excess of deaths, a larger percent of these births occurred in the first half of

the decade (Table 2). If trends of the past few years continue, growth by natural increase is expected to drop further.

Immigration. In contrast, the number of migrants from the mainland U.S. and from abroad has shown a steady growth (Table 3). In 1952 annual mainland migrants numbered 6,131 and alien immigrants totalled 702; in 1971 there were 32,207 new civilian residents from the mainland and 6,055 from abroad.⁹ These figures do not take into consideration the movement of military personnel or of American citizens and nationals arriving on eastbound and northbound carriers. Errors also occur if foreign immigrants are double-counted when they arrive on westbound carriers. Present counts are based upon a 20% sample from a voluntary Hawaii State Department of Agriculture baggage declaration form.

Accurate annual statistics on out-migration are not tallied by any agency; hence they are derived from decennial census counts, records of births, deaths, military inductions and separations, and foreign out-migration. In the past decade, gross civilian in-migration was 192,551—156,035 from other states and 36,516 from abroad. Gross out-migration was computed at 138,903.⁹ The estimated net migration figure of 53,648 gives an annual average civilian population growth due to in-migration of 5,365 for the 1960-1970 decade.

PROJECTIONS OF HAWAII'S FUTURE POPULATION

Several agencies have prepared population projections for Hawaii for the next century. All findings have indicated a rapid growth. They have shown that a total elimination of net migration, which would necessitate a balanced in- and out-flow of residents of Hawaii, would offer the most significant impact to reduce the rate of population increase to this State.

Department of Planning and Economic Development. A net migration of about 5,000 persons per year with current trends of moderate fertility and low mortality will bring Hawaii's population to a range of 1.57 to 1.68 million by the year 2020, according to a projection by State statistician Robert Schmitt.¹⁰ If the in- and out-flow of migration were balanced, the population would only be increased to a figure between 1.23 and 1.32 million. This difference attributed to net migration is between 339,000 and 355,000, or equivalent to adding another city the size of today's Honolulu to the population of Hawaii in the next 50 years.

East-West Population Institute. A projection prepared by the East-West Population Institute indicates that civilian population may be expected to double in about 35 years if 1970 rates of mi-

gration, fertility (2.42 children per woman), and mortality (life expectancy of 70.5 years for men and 77.2 for women) were to continue. How-

ever, if in- and out-migration were balanced to provide no net migration (assuming that the age distribution of migrants were such that it would

TABLE 2.—Estimated population, vital events and vital rates, Hawaii, 1912-1971.

TOTAL POPULATION											POPULATION EXCLUDING ARMED FORCES*				
Year	Mid-year Population	Births†	Deaths	Natural Increase	Marriages	Infant Deaths	Rates per 1,000 Population				Infant Deaths Per 1,000 Births*	Mid-year Population	Rates per 1,000 Population		
							Births†	Deaths	Natural Increase	Marriages			Births†	Deaths	Natural Increase
1912	209,231	5,420	3,218	2,292	3,223	1,033	25.9	14.9	11.0	15.4	190.6				
1913	217,744	6,128	3,543	2,585	3,184	1,111	28.1	16.3	11.8	14.6	181.3				
1914	227,391	6,971	3,682	3,289	2,769	1,244	30.7	16.2	14.5	12.2	178.5				
1915	231,210	7,719	3,447	4,272	2,705	1,210	33.4	14.9	18.5	11.7	156.8				
1916	237,623	7,989	3,879	4,110	2,778	1,259	33.6	16.3	17.3	11.7	157.6				
1917	250,627	9,095	3,769	5,326	2,635	1,250	36.3	15.0	21.3	10.5	137.4				
1918	256,180	9,220	3,959	5,261	2,398	1,280	36.0	15.5	20.5	9.4	138.8				
1919	263,666	9,633	3,881	5,752	2,013	1,019	36.5	14.7	21.8	7.6	105.8				
1920	260,300	9,950	4,601	5,349	2,127	1,083	38.2	17.7	20.5	8.2	108.8				
1921	275,884	10,649	3,921	6,728	2,338	1,275	38.6	14.2	24.4	8.5	119.7				
1922	284,538	11,171	4,354	6,817	2,493	1,500	39.3	15.3	24.0	8.8	134.3				
1923	298,500	11,724	4,644	7,080	2,795	1,587	39.3	15.6	23.7	9.4	135.4				
1924	307,100	12,911	4,020	8,891	3,354	1,296	42.0	13.1	28.9	10.9	100.4				
1925	323,645	12,602	4,111	8,491	2,736	1,414	38.9	12.7	26.2	8.5	112.2				
1926	328,444	12,282	3,886	8,396	2,617	1,157	37.4	11.8	25.6	8.0	94.2				
1927	333,420	11,821	4,037	7,784	2,626	1,150	35.5	12.1	23.4	7.9	97.3				
1928	348,767	11,662	4,124	7,538	2,737	973	33.4	11.8	21.6	7.8	83.4				
1929	357,649	11,235	4,383	6,852	2,565	1,135	31.4	12.3	19.1	7.2	101.0				
1930	370,620	10,803	3,864	6,939	2,443	889	29.1	10.4	18.7	6.6	82.3				
1931	375,211	10,469	3,730	6,739	2,629	799	27.9	9.9	18.0	7.0	76.3				
1932	380,507	10,500	3,670	6,830	2,726	799	27.6	9.6	18.0	7.2	76.1				
1933	380,211	9,635	3,648	5,987	2,621	695	25.3	9.6	15.7	6.9	72.1				
1934	378,948	9,313	3,455	5,858	2,838	699	24.6	9.1	15.5	7.5	75.1				
1935	384,437	9,199	3,306	5,893	2,985	620	23.9	8.6	15.3	7.8	67.4				
1936	393,277	8,594	3,434	5,160	3,292	627	21.9	8.7	13.2	8.4	73.0				
1937	396,715	8,984	3,547	5,437	3,556	617	27.6	8.9	13.7	9.0	68.7				
1938	411,485	9,066	3,229	5,837	3,868	530	22.0	7.8	14.2	9.4	58.5				
1939	414,991	9,271	3,128	6,143	3,963	489	22.3	7.5	14.8	9.5	52.7				
1940	427,884	9,650	3,086	6,564	5,355	422	22.6	7.2	15.4	12.5	43.7				
1941	459,335	10,124	2,973	7,151	6,066	408	22.0	6.5	15.5	13.2	40.3	411,148	24.6	6.8	17.8
1942	582,026	10,406	3,010	7,396	7,093	406	17.9	5.2	12.7	12.2	39.0	446,119	23.3	6.7	16.6
1943	649,650	11,638	2,902	8,736	4,984	444	17.9	4.5	13.4	7.7	38.2	449,818	25.9	6.5	19.4
1944	858,945	12,697	3,037	9,660	4,882	389	14.8	3.5	11.3	5.7	30.6	452,134	28.1	6.7	21.4
1945	814,601	12,299	2,829	9,470	4,978	340	15.1	3.5	11.6	6.1	27.6	459,867	26.7	6.2	20.5
1946	545,439	12,684	3,082	9,602	5,945	389	23.3	5.7	17.6	10.9	30.7	479,708	26.4	6.4	20.0
1947	526,238	14,597	3,118	11,479	5,846	449	27.7	5.9	21.8	11.1	30.8	487,565	29.9	6.4	23.5
1948	517,013	14,482	3,023	11,459	5,671	415	28.0	5.8	22.2	11.0	28.7	484,164	29.9	6.2	23.7
1949	511,039	14,223	2,965	11,258	5,316	358	27.8	5.8	22.0	10.4	25.2	480,358	29.6	6.2	23.4
1950	497,980	14,059	2,883	11,176	5,575	335	28.2	5.8	22.4	11.2	23.8	477,917	29.4	6.0	23.4
1951	514,256	14,463	2,819	11,644	5,860	341	28.1	5.5	22.6	11.4	23.6	470,068	30.8	6.0	24.8
1952	517,378	15,612	2,831	12,781	5,743	331	30.2	5.5	24.7	11.1	21.2	460,118	33.9	6.2	27.7
1953	509,947	16,103	2,849	13,254	5,633	338	31.6	5.6	26.0	11.0	21.0	462,732	34.8	6.2	28.6
1954	505,461	16,191	2,934	13,257	5,362	363	32.0	5.8	26.2	10.6	22.4	467,699	34.6	6.3	28.3
1955	539,292	16,305	3,087	13,218	5,431	336	30.2	5.7	24.5	10.1	20.6	482,485	33.8	6.4	27.4
1956	558,575	17,122	3,038	14,084	5,158	384	30.7	5.4	25.3	9.2	22.4	501,329	34.2	6.1	28.1
1957	584,466	17,040	3,285	13,755	4,897	407	29.2	5.6	23.6	8.4	23.9	524,885	32.5	6.3	26.2
1958	605,356	16,710	3,072	13,638	4,727	385	27.6	5.1	22.5	7.8	23.0	550,345	30.4	5.6	24.8
1959	622,087	17,050	3,246	13,804	4,958	409	27.4	5.2	22.2	8.0	24.0	565,491	30.2	5.7	24.5
1960	641,520	17,193	3,540	13,653	5,237	399	26.8	5.5	21.3	8.2	23.2	582,337	29.5	6.1	23.4
1961	658,684	17,558	3,367	14,191	5,298	381	26.7	5.1	21.6	8.0	21.7	597,872	29.4	5.6	23.6
1962	683,513	17,932	3,512	14,420	5,484	369	26.2	5.1	21.1	8.0	20.6	604,536	29.7	5.8	23.9
1963	682,241	17,744	3,643	14,101	5,750	399	26.0	5.3	20.7	8.4	22.5	622,679	28.5	5.9	22.6
1964	699,858	17,284	3,638	13,646	5,790	342	24.7	5.2	19.5	8.3	19.8	626,684	27.6	5.8	21.8
1965	703,804	16,259	3,705	12,554	6,071	349	23.1	5.3	17.8	8.6	21.5	650,423	25.0	5.7	19.3
1966	710,325	14,943	3,770	11,173	5,792	282	21.0	5.3	15.7	8.2	18.9	656,267	22.8	5.7	17.1
1967	722,528	14,765	3,897	10,868	7,345	250	20.4	5.4	15.0	10.2	16.9	666,547	22.2	5.8	16.4
1968	734,456	14,595	4,192	10,403	9,021	277	19.9	5.7	14.2	12.3	19.0	677,443	21.5	6.2	15.3
1969	750,228	15,690	4,146	11,544	9,891	298	20.9	5.5	15.4	13.2	19.0	70,1754	22.4	5.9	16.5
1970	773,667	16,467	4,132	12,335	10,562	302	21.3	5.3	16.0	13.7	18.3	719,864	22.9	5.7	17.2
1971*	789,225	15,720	4,152	11,568	9,675	255	19.9	5.3	14.6	12.3	16.2	737,559	21.3	5.6	15.7

* Data for 1971 are provisional.

† Births are unadjusted for under-registration.

TABLE 3.—Civilian In-migration, for Hawaii: 1950 to 1971.

CIVILIAN IN-MIGRATION						Rate of Alien Immigration per 1,000 population	
Migrants from other States ¹							
Year ended June 30	Total ^{2, 4}	Total	Military dependents	Other civilians	Immigrants from aboard	Hawaii	U.S. ³
1951 .....	.....	.....	.....	.....	294		
1952	6,833	6,131	.....	.....	702		
1953	7,589	6,976	.....	.....	613		
1954	6,549	5,728	.....	.....	821		
1955	7,451	6,500	.....	.....	951		
1956	11,047	9,960	.....	.....	1,087		
1957	14,908	13,524	.....	.....	1,384		
1958	19,547	18,140	.....	.....	1,407		
1959	17,492	15,876	.....	.....	1,616		
1960	19,589	17,970	.....	.....	1,619	2.5	1.5
1961	13,542	11,780	1,635	10,145	1,762	2.7	1.5
1962	17,503	15,455	4,965	10,490	2,048	3.0	1.5
1963	18,082	16,315	5,470	10,845	1,707	2.6	1.6
1964	20,965	19,342	5,984	13,358	1,623	2.3	1.5
1965	23,281	21,560	6,949	14,611	1,721	2.4	1.5
1966	20,817	17,800	4,399	13,401	3,017	4.2	1.6
1967	31,404	27,579	8,154	19,425	3,825	5.3	1.8
1968	33,398	28,705	7,593	21,112	4,693	6.4	2.3
1969	34,071	28,872	7,652	21,220	5,199	6.9	1.8
1970	41,228	32,215	8,470	23,745	9,013	11.6	1.8
1971	38,262	32,207	8,649	23,558	6,055	7.7	1.8

¹ Data for period before July 1, 1960 include small numbers of military personnel. Totals not available before October 15, 1950; distribution by military status not available before April 1, 1960.

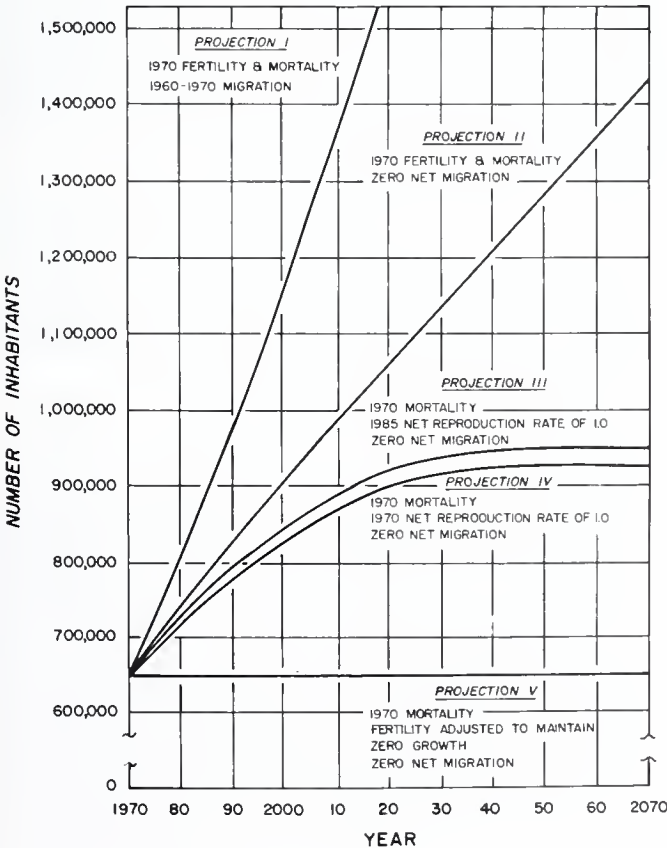
² State of Hawaii Department of Planning and Economic Development. *Statistical Reports* 84, 86. Honolulu, 1971.

³ U.S. Bureau of the Census. *Statistical Abstract of the U.S.: 1971* (92nd Ed.). Washington, D.C., 1971.

⁴ These figures exclude military personnel as well as American citizens and nationals migrating directly to Hawaii from points outside the U.S., such as American Samoa, Canada, Guam, etc.

not alter the total age distribution) and the current fertility and mortality rates remained un-

FIG. 3.—Hawaii population projections, 1970-2070, civilian population.



changed, the civilian population would not double in number for 80 years¹ (Fig. 3, Projections I and II). With an expected decline in fertility, it would be possible to anticipate a stabilized civilian population in Hawaii of less than one million persons, if in- and out-migration were balanced to eliminate net increase.

EFFECTS OF CONTINUED EXCESS IN-MIGRATION

The impact of a rapid rate of in-migration is being felt in the broad spheres of Hawaii's social, political, and economic life.

Racial. Ethnic changes in the last decade have already caused shifts in the multiracial distribution. Mainland in-migrants have contributed significantly to the increase of Caucasians from 32.0 to 38.8 percent; alien immigration, as well as high fertility, has raised the percentage of Filipinos from 10.0 to 12.2 (Fig. 1) (Table 1). Growth rates were high among Negroes and "Others" (a general term including Samoan, Micronesian, Korean). The increase in numbers of Chinese was attributed to census reclassification, in which part-Hawaiian and other mixed racial groups with Chinese surnames were added to the Chinese category, and it was not due to excess fertility or to in-migration of Chinese.

The proportion of Japanese in Hawaii dropped between 1960 and 1970 from 32.2 to 28.3%,

while Hawaiians and part-Hawaiians were reduced from 16.1 to 9.3% of the total population. Pure Hawaiians are of such limited numbers that they are no longer identified as a separate group, and are included as part-Hawaiians in the U.S. census tabulations. Many part-Hawaiians were reclassified by the U.S. census as Caucasian or Chinese, which explains in part the drop from 102,099 Hawaiian/part-Hawaiians in 1960 to only 71,375 in 1970 (Table 1).

Health. The increased incidence of specific infectious diseases is directly related to the rise in alien immigration. In 1970, immigrants contributed 32.5% of the new active cases of tuberculosis in Hawaii.¹¹ Leprosy, which has steadily decreased among native residents of the State, has been found more often in persons from Samoa and the Philippines. Of the 16 new patients diagnosed with leprosy in 1970, one was Hawaii-born, three were from American Samoa, and 12 were born in the Philippines.¹²

The influx of foreign and U.S. mainland new residents has increased the incidence of other illnesses, including venereal disease, amebiasis, malaria, intestinal worms, nutritional disorders, drug addiction, alcoholism and mental problems. In addition, population has been increased by the high rate of fertility among alien immigrants, especially Samoans and Filipinos.¹

Economic. Accommodation to increasing numbers of in-migrants adds to the complexity of meeting the needs of native inhabitants. General economic pressures of population growth are recognized in problems related to unemployment, housing, availability of government services and facilities, and community resources, including electric power, telephones, and personal services.

EFFECTS OF FEDERAL IMMIGRATION POLICIES ON HAWAII'S POPULATION

Immigrant visas for natives of the Western Hemisphere are limited to 120,000 per year; an annual limit of 170,000 immigrant visas is set for

aliens from elsewhere throughout the world, excluding immediate relatives of U.S. citizens. Total immigrants admitted to the U.S. in 1970 were 373,326, and in 1971 there were 370,478.¹³ This continued in-flow has a significant impact on growth of population in the United States. The rate of alien immigration per thousand state population in Hawaii was four times the national rate in 1971 (Table 3). Other states with high rates were New York, Washington, D.C., California, New Jersey, and Rhode Island.

The Act of October 3, 1965, liberalized the quota system and has increased immigration to the U.S. from Asia nearly four-fold.¹⁴ The immigrant quota was changed to a new preference system, and numbers allocated to a country but not used were transferred to an immigration pool and offered to preference immigrants of a country whose quota was full. It also altered some of the terminology, making the "non-quota immigrant" an "immediate relative" or "special immigrant," who are exempt from the numerical ceiling.¹⁵ This new law has had a disproportionate effect upon Hawaii, as is seen in the increase in rate of alien immigration since 1965 (Table 3).

CONCLUSION

The reduction of numbers of people living in Hawaii in the nineteenth century has been followed by growth attributed to multiracial labor force immigration, natural increase of births in excess of deaths, and recent inflow of mainland and alien migrants. The birth rate has shown a significant drop since 1962. If the present trends continue, in-migration will be the primary factor for population change in the State.

ACKNOWLEDGMENT

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*The effects of the new law summarized
for the first 21 months . . .*

Abortion in Hawaii: 1970-1971

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On March 11, 1970, Hawaii became the first State in the nation to allow abortion essentially at the request of the woman. An abortion may be performed legally by a licensed physician in an accredited hospital before the fetus is viable outside the uterus, if the woman has been a resident for a minimum of 90 days immediately prior to the abortion. Other restrictions imposed are those that normally apply to any medical-surgical procedure.

Prior to the passage of the law, many legislators, individuals, and organizations in Hawaii expressed concern about the effects of the new law. The State Legislature allocated funds to the University of Hawaii, School of Public Health, to initiate a study of the operation and effects of the law. The study was multi-disciplinary from its inception, and now involves a research team composed of representatives from the School of Public Health, the School of Medicine, the Department of Sociology and the East-West Population Institute.

THIS ARTICLE, based on a report made to the Hawaii State Legislature on the operation and effect of the law, is an analysis of data from all cases of induced abortion performed in hospitals in 1970-71.*

Following the enactment of the law, from March 11, 1970 through December 31, 1971, 7,148 induced abortions were performed in 15 hospitals. During the first 21 months of the new law, there were changes in characteristics of women receiving induced abortion, and also in medical and social factors related to the operation of the law. However, it was still too early to assess the full effect of the new abortion law on birth

rates, illegitimacy, adoptions, or sexual and reproductive behavior. Yearly fluctuations in such factors have occurred even before the abortion law was changed, and a time period longer than one or two years is necessary before we can assess these effects of the law change.

METHODS

Data on abortion patients were collected from hospital charts, self-administered questionnaires, and in-depth interviews.† Information from hospital charts on all abortion patients was made available to the study by every hospital in the State of Hawaii performing abortions. Information from the charts includes limited demographic, medical, and socioeconomic data. A self-administered questionnaire was given to abortion patients when they were admitted to the hospital and was filled out by each patient prior to abortion. Questionnaire participation by all patients was voluntary.‡ The questionnaire provides information on demographic, socioeconomic and attitudinal factors, aspirations of family size, contraceptive practices, reasons for use and non-use of contraceptives, and reasons for having the abortion. Information was also obtained by interviews and correspondence with hospital administrators, physicians, and other medical personnel.

To determine whether changes had occurred during the first two years, the data were divided into calendar quarters, with the first quarter including March 11, 1970 through June 30, 1970.

* The research team would like to express its gratitude to the legislature for its assistance. Additional support has been received from the Population Council, the National Institute of Child Health and Human Development, the Ford Foundation, the East-West Population Institute, and the Health and Community Services Council of Hawaii. The co-authors are indebted to Alice Beechert and Kay Hoke for assistance in preparing this paper. They also gratefully acknowledge the cooperation of the many physicians and hospital personnel who make this study possible. This is Report No. 4 of the Hawaii Pregnancy, Birth Control and Abortion Study.
† Data from maternity patients were also collected but are not included in this report.

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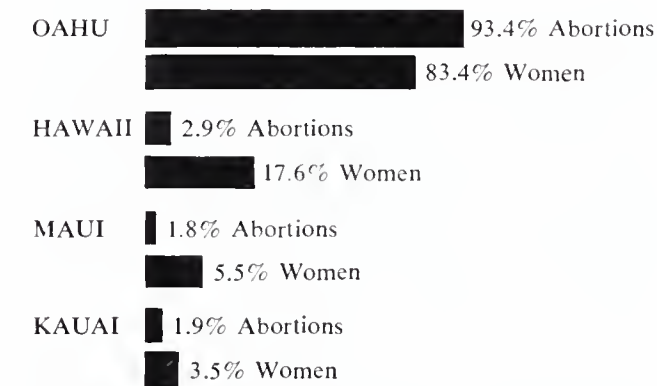
This first reporting period is somewhat longer because the law took effect in the middle of a month. Where changes were observed, the data are reported by period. If no change was observed, data are reported for the entire period, March 11, 1970 through December 31, 1971.

FINDINGS AND DISCUSSION

Geographic Distribution

The geographic distribution of the 7,148 induced abortions did not follow the population distribution in the State (Figure 1).§ A total of

FIG. 1.—Distribution of 7,148 induced abortions compared with distribution of women aged 13-49 by County. Hawaii: March 11, 1970-December 31, 1971.



Modification of Table 35, U.S. Department of Commerce, General Population Characteristics, 1970, PC(1)-B 13 Hawaii.

6,675 abortions were performed on Oahu. This was 93.4% of the abortions, while only 83.4% of the women aged 13-49 in the State live on Oahu. However, 4.1% of the Oahu abortions were performed on neighbor island women.

During the first three months after the change in the law, only 3.2% of the abortions were per-

† Questionnaires were phased into use beginning in June, 1970, so not every abortion patient received one during the first year. In all, 76.2% (3,121) completed questionnaires were received from 4,096 patients. The availability of demographic information from hospital records on virtually all abortions made it possible to identify most of the non-response bias in the questionnaire sample and to correct for the bias by a weighting procedure. Initial tests revealed a slightly skewed distribution on the variables of age, marital status and ethnicity. For age and ethnicity this was due to both questionnaire refusal and faulty questionnaire distribution. Smaller biases in marital status were due almost entirely to questionnaire distribution. There were no distortions in residence (urban-rural) in the abortion sample. To account for both sources of bias, a three-factor weighting on age, marital status and ethnicity was applied according to the following formula:

$$\frac{Ci + Ri + Ni}{Ci} \times \frac{\sum_{i=1}^P (Ci + Ri)}{\sum_{i=1}^P (Ci + Ri + Ni)}$$

Where C = completed questionnaires
R = refused questionnaires
N = not distributed questionnaires
P = total number of groups

The weights range in value from .55 to 4.95 with 82% of the weights between the values of 1.00 and 2.00.

§ The most appropriate comparison to make, in this and subsequent tables, would be to all pregnant women in the State. Comparisons of this type are underway utilizing "conception cohorts" of maternity and abortion patients matched by estimated time of conception 1. For this report, the less exact comparison to State population figures is employed. Where possible, these figures are limited to women, or to women in the fertile age range.

formed on the neighbor islands, though 16.6% of the population at risk resided there. By the last quarter of 1971, this had increased to 7.5%. The average for the entire period was 6.6%. Three major hospitals on Oahu performed 92.5% of the State's abortions during the first period compared to 84.4% for the entire 21 months. This represents a general trend for women to obtain abortions in their own community.

TABLE 1.—Induced abortions by hospital. Hawaii: March 11, 1970-December 31, 1971.

HOSPITAL	ABORTIONS	PERCENT
1	666	9.3
2	4,153	58.1
4	1,215	17.0
5 ^a	641	9.0
6 ^b	473	6.6
TOTAL	7,148	100.0

^a Conglomerate representing six small hospitals on Oahu.
^b Conglomerate representing six hospitals on neighbor islands.

Frequency of Abortions

The number of abortions performed per day increased slightly during the 21 months, from 9.1 to 11.4 with an average of 10.9 per day. The number of maternity cases in the State decreased during the two-year period from 16,467 in 1970 to 15,874 in 1971. At the same time, the ratio of abortions to live births changed from one abortion for every 4.8 live births to one abortion for every 3.8 live births. In sum, the absolute number of pregnancies represented by live births and abortions increased very slightly while the number of such pregnancies terminated in abortion increased substantially, as shown by the live birth to abortion ratio (Table 2). Live births in the State seem to be reduced both by increased utilization of contraception and by increased use of abortion.

TABLE 2.—Ratio of abortions to live births by period. Hawaii: March 11, 1970-December 31, 1971.

	ABORTIONS	LIVE BIRTHS	RATIO
March-June	1,015	4,833	1:4.8
July-September	996	4,228	1:4.4
October-December	884	4,320	1:4.9
January-March	994	3,978	1:4.0
April-June	1,089	3,796	1:3.5
July-September	1,153	4,081	1:3.5
October-December	1,047	4,019	1:3.8
TOTAL	7,148	29,255	1:4.1

Gestation

For 87.2% of the abortions performed, the gestation period was 12 weeks or less (Table 3). Only 1% of the abortions were performed when the period of gestation was more than 20 weeks, and only seven abortions were performed after a 24 week gestation period.

TABLE 3.—Length of gestation in weeks for 7,148 abortions performed per reporting period as percent of abortions in that period.
Hawaii: March 11, 1970–December 31, 1971.

	WEEKS OF GESTATION					Total
	8 or Less	9-12	13-16	17-20	Over 20	
Mar.-June	40.5	44.1	7.6	6.6	1.2	100.0
July-Sept.	46.0	41.5	6.5	5.1	0.9	100.0
Oct.-Dec.	47.3	41.3	5.4	5.3	0.7	100.0
Jan.-Mar.	45.8	41.4	5.9	6.0	0.9	100.0
Apr.-June	42.8	43.4	8.3	4.9	0.6	100.0
July-Sept.	49.0	39.0	6.5	4.2	1.3	100.0
Oct.-Dec.	48.0	40.1	5.8	4.8	1.3	100.0
OVERALL	45.7	41.5	6.6	5.2	1.0	100.0

Abortion Procedures, Complications, and Length of Stay

Six different procedures were used to perform abortions. The methods used were generally determined by the length of gestation at the time of abortion. Dilatation and curettage (D&C) and/or suction were the two procedures most frequently used up to 12-14 weeks gestation. Saline infusion and hysterotomy were generally used at 15 or more weeks' gestation. Hysterectomy was used at any time during gestation when removal of the uterus was indicated. Prostaglandin, a new medication under clinical investigation, was used to induce abortion primarily early in gestation. Approximately 89.7% of the abortions were performed by D&C and/or suction (Table 4).

TABLE 4.—Procedures used to induce abortions.
Hawaii: March 11, 1970–December 31, 1971.

PROCEDURE	ABORTIONS	PERCENT
D&C	1,495	20.9
D&C/Suction	4,915	68.8
SUBTOTAL	6,410	89.7
Saline	614	8.6
Hysterotomy	49	0.7
Hysterectomy	40	0.6
Prostaglandin	28	0.3
Other	7	0.1
TOTAL	7,148	100.0

Abortions in the "Other" category were performed using, alone or in combination, the following: laminaria, pitocin, mannitol, and Foley bag.

The incidence of complications resulting from 7,148 abortions was 6.9% (Table 5). There was an increase in complication rates during the 21 months, from 4.1% in the first period to 9.7% in the last period. A detailed study of this trend is under way and will be reported on in the near future. No mortalities occurred during the first year. However, one mortality occurred during the second year. At this writing over 13,000 abortions have been performed with only the one mortality. By far the majority of the complications were

minor. Major complications (hemorrhage, uterine perforation, metabolic disorders and related sequelae) comprised 23.5% of all complications and represented 1.6% of the patients who received abortions. Our criteria for complications are very broad and include some minor items not usually considered by the hospitals or other researchers to be complications (eg, elevated temperature of 100.6°, minor infection or cervical laceration of any degree). Even with the broad definition we have used, Hawaii's overall complication rates were equivalent to those reported by studies on the mainland.²

TABLE 5.—Number of complications by type in 7,148 induced abortions.
Hawaii: March 11, 1970–December 31, 1971.

TYPE OF COMPLICATION	PERCENT OF COMPLICATIONS (6.9%)	NUMBER OF COMPLICATIONS
Cervical Laceration	17.7	87
Hemorrhage	19.8	97
Infection	22.2	109
Failed Abortion	13.0	64
Retained Tissue	17.1	84
Uterus Perforation	3.1	15
Metabolic	0.6	3
Death	0.2	1
Miscellaneous	6.3	31
TOTAL	100.0	491

The incidence of complications was closely related to length of gestation. Through the first 12 weeks of gestation, complications were about 5%. After the 12th week, the incidence of complications more than quadrupled (Table 6). New York City reported the same ratio.³ California noted approximately a five-fold increase.⁴

TABLE 6.—Complications by gestation.
Hawaii: March 11, 1970–December 31, 1971.

GESTATION	NUMBER OF ABORTIONS	PERCENT COMPLICATIONS
8 weeks or less	3,263	4.2
9-12 weeks	2,969	5.2
13-16 weeks	473	20.1
17-20 weeks	374	25.8
Over 20 weeks	69	20.3
TOTAL	7,148	OVERALL 6.9

Because the type of procedure varies with length of gestation, the rate of complications also varied with procedure. Complications associated with D&C, and/or with suction, occurred at the rate of 4.6%. (During the first year suction was rarely used alone. Hence, the two procedures are reported together.) With experience and changes in techniques, the frequency and pattern of complications changed. For example, with increased use of laminaria, 4 mm and 6 mm suction tips, and decreased use of manual dilatation, there was a marked decrease in the incidence of cervical lacerations from 22.1% in 1970 to 17.7% by the

end of 1971. Infection rose from third to the most frequent complication while hemorrhage remained second.

The most frequently used procedure for abortion late in gestation, saline infusion, had a complication incidence of 23.9% in Hawaii, which is comparable to the national figures.² The majority of complications resulting from saline infusion procedures were minor, and were in three categories: 1) infection (32.7%), 2) failed abortion necessitating a repeat of the procedure at a later date (28.6%), and 3) retained secundines (24.5%).

When abortions were performed early in gestation in the hospitals doing most of the abortions, the patient's length of stay in the hospital was short (6-12 hours). In those hospitals performing fewer abortions, there was a tendency to retain the patient for a minimum of 36 hours, regardless of length of gestation.

As hospitals and physicians gained more experience with the management of induced abortions, the length of stay in the hospital decreased. A comparison of the first reporting period with later periods for under 12-hour hospitalizations shows a slight trend to a shorter stay (Table 7).

TABLE 7.—Length of stay in hospital percentage by reporting period.
Hawaii: March 11, 1970–December 31, 1972.

	HOURS IN HOSPITAL					Total
	6 or Less	7-12	13-24	25-48	49 or More	
Mar.-June	8.6	38.5	15.4	27.1	10.4	100.0
July-Sept.	8.2	47.2	12.4	20.5	11.7	100.0
Oct.-Dec.	8.9	49.1	11.4	20.9	9.6	100.0
Jan.-Mar.	10.5	49.2	8.2	19.4	12.7	100.0
Apr.-June	8.4	48.8	9.7	22.2	10.9	100.0
July-Sept.	8.8	52.4	8.4	18.9	11.5	100.0
Oct.-Dec.	11.6	51.0	8.5	17.2	11.7	100.0
OVERALL	9.3	48.1	10.5	20.8	11.3	100.0

Factors Leading to Later Abortions

Women under 20 were much more likely than older women to have abortions after the end of the 12th week of gestation. Among women under 18, 27.6% obtained their abortions after the 12th week. Of the 18 and 19 year olds, 20.1% had abortions after the first 12 weeks, as compared with 12.4% of the 20 year olds. Of all women over 20, 9.6% received their abortions after 12 weeks.

The percentage of women who received their abortions by the end of the 12th week was related to their method of payment for the abortion. In cases where parents paid for the abortion, 27.1% of the women aborted after the 12th week of gestation. By contrast, only 7.8% of women with insurance coverage and 8.8% of women whose bill was paid by the man involved other

than husband had their abortions after the 12th week, as did 12.7% of women paying out of personal funds. All women who paid for their abortion by a loan had aborted before the 13th week.

Patients whose method of payment involved Department of Social Services or military payment procedures were more likely to have their abortion later. Of the welfare-assisted abortions and for those paid by the military, 17.5% were obtained after 12 weeks of gestation.

The woman's major source of income was also related to the timing of her abortion. Of those supported by scholarships, alimony, or their own or their husband's job, 92.1% received their abortions during the first 12 weeks of gestation. Of those on welfare assistance, 83.3% and of those supported by their parents, 81.6%, received their abortions during the same time period. Of those living in their own house or apartment or with friends, 91.0% received their abortions by the end of the first 12 weeks, as compared with 85.0% of those living with their parents.

In summary, the greatest delays in obtaining abortions occurred among women who were under 18, women who lived at home, women who were supported by their parents, or women whose abortions were paid for by their parents. These lags seemed to result from a combination of financial dependence and the necessity for minors to obtain parental permission for the abortion. Despite the fact that insurance coverage was seldom available to single women during the first year of the new law, this did not cause an appreciable lag in obtaining abortions if they had resources other than their own parents.

Delaying an abortion past the 12th week of gestation involves changes in abortion procedure, increased hospitalization time, and a markedly higher risk of complication. There are both medical and social conditions which make abortions beyond the 12th week necessary. However, many late abortions could be eliminated if legal and financial barriers were removed.

Medical Safeguards

The medical profession and the hospitals established conservative safeguards for the implementation of the abortion law. Whether the physician performing abortions was a specialist in obstetrics and gynecology depended on the hospital's policies and regulations. For the most part, hospitals allowed only board-eligible or certified obstetrician-gynecologists to perform abortions on patients over a specified period of gestation. In some hospitals the limit was 12 weeks, in others 16 weeks.

Hospitals also set up other safeguards in con-

sideration of the patient's welfare. When a woman was to have an abortion late in gestation (12 or 16 weeks depending upon the particular hospital), a minimum requirement generally was one or more consultations with an obstetrician-gynecologist. If the gestation was as late as 20 weeks, the case was presented to an abortion board or committee in order to determine the necessity of the abortion, and to weigh its medical risks against the need for the abortion.

While the pattern varied from hospital to hospital, it seems apparent that safeguards were taken by the hospitals and their medical staffs to prevent the performance of abortions by physicians not qualified in specific procedures and to avoid non-indicated abortions performed very late in gestation, when there may be a question of fetal viability.

Cost

The usual cost for an abortion in Hawaii was about \$350.00. This varied from locale to locale and among physicians. For a patient without insurance or other assistance, the personal cost to the woman was a minimum of \$300.00. This cost consisted of two main components: physician's fees and hospital charges. For those hospitals other than prepaid insurance or military, charges were approximately \$160.00 for those patients remaining in the hospital 12 hours or less and not overnight. Most physicians' fees were around \$150.00 when the abortion was performed early in gestation and no complications were involved.

The largest percentage of abortions were paid for by personal funds (50.4%), which were obtained from the patient, parents, husband, male involved in the pregnancy other than husband, or a loan. During the first year of the new law, insurance coverage was not available to most women who had abortions. Insurance partially covered the expenses of 26.9% of the women during the first period and 38.8% during the last quarter of 1971, or for 28.2% of the total during the 21 months. Military insurance paid for 8.3% of the abortions, 43.7% of which were performed in non-military hospitals. Prepayment plans, major medical carriers, and the military covered from 30% to 92% of total costs to the patient.

Department of Social Services (DSS) assistance for payment of abortion costs was available both to regular welfare recipients and to other women classified as medically indigent. DSS paid for 817 (11.4%) abortions, but fewer than one-fourth of these women were receiving other welfare assistance. DSS paid for 9.4% of abortions on the outer islands during the first reporting period. However, for 1970-71 as a whole this figure increased to 22.2%.

Sterilization

Sterilization was available to women while they were in the hospital to have an abortion, but very few women elected to be sterilized, in part because 47.0% of the women were terminating a first pregnancy. Only 3.6% of the women were sterilized: 200 women had tubal ligation and 59 women had hysterectomies. Sterilizations were performed on 7.0% of the private insurance patients; 4.6% of the welfare patients; 4.4% of the military payment patients; 2.8% of loan patients; and 1.7% of the patients paying from personal savings. There were no sterilizations among patients whose abortions were paid for by the man involved in the pregnancy other than the husband.

Demographic and Social Characteristics

Nearly half of the abortion patients (47.0%) were terminating a first pregnancy. An additional 26.9% were terminating a second or third pregnancy, while the remaining women (26.1%) were ending a fourth or higher pregnancy.

The age distribution of the 7,148 women having induced abortions covers a wide range of fertile years, 12-48. 20.2% were under 20 years of age; 21.8% were 30 or over. The average age was 24.7 years. 53.4% had never been married. The remaining 46.6% were married (36.6%), divorced (6.6%), separated (2.7%) or widowed (0.6%).

The religious distribution of abortion patients closely followed that of the State for Catholics and Protestants (Table 8). Of the abortion patients, 39.7% were Protestant and 28.9% were Catholic. Buddhists comprise 14.0% of the population and only 8.1% of the abortion patients. The religious preference of the women did not affect their reasons for abortion, the length of gestation, or prior use of birth control.

TABLE 8.—Religious distribution of 7,148 abortion patients compared with State of Hawaii total population.
Hawaii: March 11, 1970–December 31, 1971.

	PERCENT OF ABORTIONS	PERCENT OF STATE
Protestant	39.7	46.7
Catholic	28.9	27.3
Buddhist	8.1	14.0
Jewish	0.9	0.1
Other and None	22.4	11.9

Statistical abstract of sample survey, 1962, Economic Research Center, University of Hawaii. These are the most recent figures available. Later data has been compiled for church membership, *State of Hawaii Data Book 1971*, Table 9, but this information is not directly comparable.

Of the abortion patients, 43.7% were born and raised in Hawaii, while 17.4% had lived in the State less than a year.

The law stipulates a 90-day residence for women receiving abortions. At present the hos-

pitals protect themselves against possible liability by requiring every abortion patient to file a notarized statement that she has been a resident in the state for the past 90 days. An effort was made early in the year to determine the degree of non-compliance. Four methods were used to estimate residency, three statistical and one an audit.** Each method indicated that during the first five months the percentage of women coming to Hawaii without fulfilling the 90-day residency clause was between 8% and 13%, or an average of one per day. The low estimate is from direct reporting by questionnaire respondents. Some falsification might be expected since the respondents were reporting illegal behavior. The percentage reported dropped to 2.3% immediately after New York's abortion law was enacted in July, 1970. By the end of 1970, other states on the west coast—Alaska, California, and Washington—had also begun to relax abortion restrictions, and the rate of non-resident abortions reported in Hawaii dropped to less than 1%. Obviously, Hawaii had not become an "abortion mecca" as some feared.

The ethnic distribution of abortion patients differed from the State's distribution of females by ethnic group (Table 9). Caucasians comprised 37.4% of the state population of females and 44.0% of the abortion population. Japanese comprised 30.4% of the State female population and 20.5% of the abortion population. Hawaiians and part-Hawaiians comprised 9.8% of the State female population, and 8.0% of the abortion population.

TABLE 9.—Ethnic distribution of abortion patients compared to State population of women.
Hawaii: March 11, 1970–December 31, 1971.

	NUMBER OF ABORTIONS	PERCENT OF ABORTIONS	PERCENT OF STATE
Caucasian	3,144	44.0	37.4
Japanese	1,463	20.5	30.4
Hawaiian/ Part Hawaiian	572	8.0	9.8
Filipino	524	7.3	11.0
Chinese	264	3.7	7.0
Other and Mixed	1,181	16.5	4.4
TOTAL	7,148	100.0	100.0

Recalculated from: Table 34, U.S. Department of Commerce, *General Population Characteristics, 1970*, PC(1)-B13 Hawaii.

At the time of conception, over 50% of the Caucasians, Japanese and Chinese abortion patients were unmarried, as were 40.4% of the Hawaiian patients. However, only 32.3% of the Filipino patients were unmarried.

Of the abortion patients, 24.7% were students, 22.2% housewives, and 22.1% were clerical

workers. In the student category, 37.2% were under 18 years of age. 50.9% of the students were 18-22 years of age.

The educational level of abortion patients was high. Over 80% of the women had completed high school and more than 50% had education beyond high school. Only 15.7% of the women had less than a high school education, and many of these women were currently in high school and planning to obtain further education.

Abortion patients were asked to report their family income (Table 10). Since many of the women were single, however, it was difficult to determine what family income included. In some cases, it might have been the personal income of an independent college student or employed woman. In other cases, it might have been of a student who was wholly supported by the parents. This problem made it difficult to compare the income level of abortion patients with that of the State as a whole. When compared with 1970 census figures for family income in Hawaii, abortion patients appeared to have considerably lower incomes. However, when the census figures for family income and income of unrelated individuals in the state were compared, the distribution was very similar to that of abortion patients. In either case, there was no evidence to suggest that abortion patients were drawn disproportionately from higher income categories.

TABLE 10.—Family income distribution of abortion patients compared with State of Hawaii total population.
Hawaii: March 13, 1970–December 31, 1971.

INCOME RANGES	PERCENT OF ABORTIONS	PERCENT OF STATE FAMILY INCOME	PERCENT OF STATE FAMILY INCOME AND UNRELATED INDIVIDUALS
Under \$6,000	34.0	18.4	37.1
\$6,000-\$9,999	25.1	22.9	20.6
\$10,000-\$14,000	20.7	26.2	19.5
\$15,000 or More	20.2	32.5	22.8
TOTAL	100.0	100.0	100.0

State income distribution calculated from Tables 47 and 57, U.S. Department of Commerce, *General Social and Economic Characteristics, 1970*, PC(1)-C13, Hawaii.

Motivations, Sexual Behavior, and Contraception

Prior to the change in the law, some legislators and community members expressed concern about the reasons for abortion and whether noticeable changes in behavior would follow the change in Hawaii's abortion law. This is an area very difficult to monitor.

The most frequently cited reasons for abortion in the sample were, "I am not married" and "I cannot afford to have a child at this time," which were each given by 35.4% of the patients answering the questionnaire. Next most frequent

** Conducted in association with Frank Zimring, Associate Professor of Law, Center for Studies in Criminal Justice, The Law School, University of Chicago.

were, "I feel that I am unable to cope with a child at this time," given by 26.4%, and, "A child would interfere with my education," given by 23.1%. "I have enough children already," said 15.4%, and 16.4% said, "I am too young to have a child." Other reasons were less frequently given.

In the past, morality has been measured by adherence to a religion, illegitimacy rates and/or promiscuity. Information on religion has been reported above. Data from our study indicate that, if abortion were still illegal, approximately 0.1% of the women who had legal abortions would have remained single and borne children out of wedlock. However, statewide illegitimacy trends cannot be determined for at least another year or two, due to normal fluctuation in rates.

During the first 21 months of the law, 36.6% of the women having abortions were married and 18.6% were engaged, going steady or living with a man at the time of conception. Thus, 55.2% of the women were involved in a continuing relationship.

Another possible indicator of morality is the age at which girls first engage in intercourse. Our data for the first three months following abortion repeal show 18.7 as the mean age of first coitus. For the last three months, 18.2 was the mean age of first coitus. No significant change in sexual behavior is revealed by this measure, but we do not know if the proportion of women who engaged in intercourse has changed.

There was some concern that the use of birth control methods would diminish following reform of the abortion law. There seems to be no evidence in the data to substantiate this fear. In fact, the opposite seems to be occurring. In the first quarter of the year, 64.9% of the women receiving abortions had not been using birth control. A smaller percentage, 58.8%, had not used birth control during the last quarter, with a mean of 64.4% not using birth control over the 21 month period. Although there was an increase in the percent using birth control, the rate of non-use itself was still high.

Another measure of the use of abortion as a means of birth control is the frequency of repeat abortions. It is difficult to have complete reporting of repeat abortions since patients may change doctor and hospital, and may not report previous abortions to medical personnel. According to available medical record data, only 195 women (2.7%) received two legal abortions during 1970-71. We expect that this number will rise slightly in the future, since reporting is cumulative. Overall, 10.7% of the women reported having had one abortion, legal or illegal, at some previous time. Only 1.9% reported having had more than one previous abortion.

CONCLUSION

In general, Hawaii's new abortion law has been used by women of all religions, ethnic groups and geographic areas in the State. During the first 21 months following the change in the abortion law, no large influx of non-residents was observed nor was there any appreciable change in sexual behavior or contraceptive usage. As anticipated, the physicians and hospitals in Hawaii have proved fully capable of handling the abortion procedures and their record of service is generally good. Legal abortion has not created any serious problems for Hawaii, medically or socially. Safeguards established by the medical profession and hospital administrations have provided safe medical care for the women of Hawaii.

Based on the above findings and our concern for the women of Hawaii, the following recommendations are suggested for consideration by the Hawaii Medical Association and the Legislature of the State of Hawaii.

RECOMMENDATIONS

To decrease the need for abortion we recommend that:

- A. Family life, sex and reproduction education appropriate to age level and including information on birth control and abortion, be further emphasized and supported in all schools, public and private. Such education should be offered in primary, intermediate, secondary, and post-secondary institutions, to enable individuals to control their reproductive lives.
- B. Conception planning be integrated into abortion services. All institutions offering abortion services should offer birth control counseling in order to prevent repetition of the need for abortion.
- C. There be no restrictions on the provision of birth control services or the availability of contraceptives for any sexually active person regardless of age, sex, or marital status.

To ensure equal availability of abortion services regardless of social or economic class we recommend that:

- A. Abortion services (ie, pregnancy counseling, laboratory services, and referral and payment for the abortion) be made available through state-administered health services such as maternity and family-planning clinics and other prenatal care programs.
- B. The State provide subsidies or low-interest loans to all women in financial need who are seeking abortions, with a minimum of procedures which might delay obtaining the abortion.

To facilitate early abortions we recommend:

- A. Increased dissemination of information on abortion, regarding provisions of the law, availability of assistance, procedures for obtaining abortion, and the greater safety of early abortion.
- B. That minors be permitted to obtain abortion services without parental consent. Parental guidance in such matters is highly desirable, but not at the cost of delaying or denying needed medical services to the pregnant woman.

To obtain continuing and accurate abortion information we recommend that:

- A. A standardized state-wide reporting system be established which maintains the distinction between fetal deaths and induced

abortions, and provides for the routine collection of basic demographic and medical information on all induced abortions in the state.

- B. Fetal deaths and induced abortions be distinguished, both statistically and conceptually.

To facilitate the administration of the law we recommend that:

The 90 day residency requirement be rescinded. The availability of legal abortion on the mainland and relatively infrequent use by non-residents in Hawaii of abortion procedure makes the administrative procedures attendant to proof of residence superfluous in the great majority of cases. This is an added burden to the hospitals and is considered an infringement of privacy by most women.

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A Preliminary Report

Abortion in Hawaii--Present and Future Trends

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AS REPORTED by Drs. Smith, Diamond, Steinhoff, and Palmore, abortions performed in Hawaii prior to the twelfth week of gestation are usually terminated by dilatation and suction curettage and are associated with low complication rates. Abortions after the twelfth week of gestation utilizing intra-amniotic hypertonic saline are associated with greater than a fourfold increase in complication.

In this preliminary report, we wish to describe two methods which, if used widely, would dramatically decrease the cost and risk of early abortion. Both utilize a small 4 to 6 mm "Karman" cannula and both can be performed in less than one hour in an outpatient setting.

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The Karman cannula (Fig. 1) is a flexible length of polyethylene tubing closed at one end with a rounded tip, immediately below which are two openings in series. These are placed so that if the cannula is pushed against the wall of the uterine cavity the tip will collapse rather than perforate the uterus. The upper edge of each opening is sharp and convex and acts as a curette. The negative intracavitary pressure obtained via a vacuum source pulls the tissue through the tubing.

OUTPATIENT ABORTIONS

The following pilot study was done in the Outpatient Department of Kapiolani Hospital. All patients requesting abortion nine weeks or less after their last menstrual period were considered

FIG. 1.—*The Karman cannula.*



as candidates. If pelvic examination revealed a uterine size compatible with the menstrual dates, and if the patient agreed to participate after careful counselling, the following procedures were performed.

The patient had a complete blood count, urinalysis, serological test for syphilis, blood type, Rh, pap smear, and pregnancy test. In addition, a complete history and physical examination were performed. She was instructed to return on the following afternoon, and advised to eat a light breakfast and no lunch. Contraceptive procedures were explained.

Upon arrival she was instructed to empty her bladder and was escorted to the cystoscopy room where she was placed in the lithotomy position. Bimanual examination ascertained the position and size of the uterus. A Graves' speculum was placed in the vagina and the anterior lip of the cervix was grasped with an atraumatic tenaculum. A paracervical block was employed utilizing 10 cc of 1% xylocaine on each side and the 6 mm Karman cannula was introduced into the uterine cavity. 600 mm of mercury suction was applied. The cannula was rotated through 180 degrees and at the same time short piston-like strokes of the cannula were carried out within the uterine cavity. The entire procedure required less than 15 minutes and the actual aspiration less than 5 minutes of the operator's time. The patient was then observed in the supine position for approximately 25 minutes, after which time she was given detailed instructions concerning postoperative management and contraception. A followup visit was scheduled two weeks later.

Of the 38 patients who underwent this type of procedure, most were pregnant for the first time. One experienced a complication. She developed endometritis necessitating readmission to the hospital and was treated with antibiotics, dilatation and curettage.

INDUCING THE LATE MENSTRUAL PERIOD

A second group of volunteers who were coitally active, in their reproductive years, whose menstrual periods had been regular in the preceding six months, who were anxious to avoid pregnancy and who had missed their menstrual period for several days, volunteered for "endometrial aspiration." This was carried out in the outpatient clinic at Kapiolani Hospital. The procedure is much the same as outlined above except for the vacuum source and the cannula size. A 4 to 6 mm Karman cannula was attached to a Karman 50 cc syringe, instead of a machine-induced negative pressure source. The aspiration time required approximately 2 minutes and the patient was observed for approximately 30 minutes after the procedure. She was then offered contraceptive information and given an appointment in 10 days to return for a followup pregnancy test.

Fifty such procedures were performed during November and December, 1972. The majority of the patients were single and under 25 years of age. One patient required suction curettage two weeks after menstrual aspiration for a diagnosis of incomplete abortion. A second patient required suction curettage five weeks later because of a uninterrupted, unwanted pregnancy.

The utilization of the Karman type plastic cannula attached to the Karman suction syringe has proved, in our hands, to be safe, simple, and an effective method of removing early implantation sites. No morbidity occurred in this preliminary study. The two patients whose pregnancies continued will be evaluated for the presence of possible uterine cavity anomalies. It is hoped that this procedure will become a standard outpatient hospital procedure and its cost will parallel that of outpatient endometrial biopsy and intrauterine device insertion.

SUMMARY

In this preliminary communique we have presented two methods of responding to unplanned unwanted early pregnancies. Both methods can be done on an outpatient basis, do not require general anesthesia and in our hands have proven to be safe, simple and effective.

Although abortion is a poor substitute for effective contraception, nevertheless some 300 patients per month continue to seek these procedures in our State. Until more effective contraceptive means are universally available we believe that earlier intervention with the described innovative techniques warrants wider utilization.

Saline Abortion: A Review of the Experience at Kapiolani Hospital

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• The experience with saline instillation abortions at Kapiolani Maternity and Gynecologic Hospital during the first seven months of 1972 is reviewed. Although this has been generally found to be an effective method of midtrimester abortion, 32.7% of the patients admitted for this procedure experienced one or more complications.

INTRAAMNIOTIC INSTILLATION of hypertonic saline is widely accepted as a reliable method of midtrimester therapeutic abortion. However, this procedure is not without risk, and warrants careful attention to proper technique and precautions. As alternative methods of midtrimester abortion, such as prostaglandin and urea instillation, are being investigated, the need arises for recent information on the current, most frequently employed method.

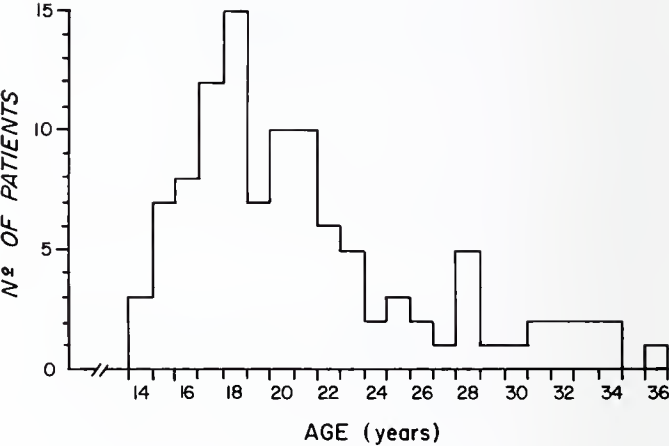
Methodology

Data were collected from the records of all cases of midtrimester therapeutic abortion by intraamniotic hypertonic saline instillation between January and July of 1972 at Kapiolani Hospital. Those patients who had saline instilled as a secondary procedure following the administration of prostaglandin were excluded.

Results

During the period, January through July, 1972, 107 patients were admitted to Kapiolani Hospital for saline instillation abortion. The age distribution of this group of patients is shown in Figure 1. The mean age was 20.9 years (median 20, mode 18), with 42% being 18 years and under.

FIG. 1.—Age distribution.



The majority of the patients were single (77.5%), with the ethnic representation shown in Table 1.

TABLE 1.—Ethnic distribution

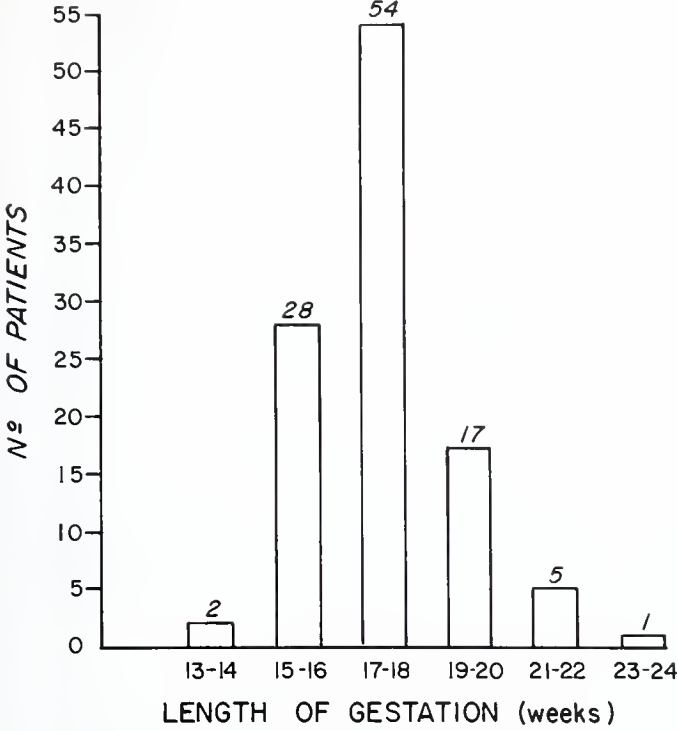
ETHNIC GROUP	NO. OF PATIENTS
Caucasian	26 (24.3%)
Japanese	25 (23.4%)
Filipino	11 (10.3%)
Part-Hawaiian	12 (11.2%)
Chinese	2 (1.9%)
Mixed	24 (22.4%)
Other	7 (6.5%)

Sixty-two patients (57.9%) were primigravidas and 43 (40.2%) were multigravidas. For two patients, gravidity was not recorded. The estimated length of gestation (based on clinical appraisal of uterine size and menstrual history) ranged from 14 to 23 weeks, with a mean of 17.7 weeks (Figure 2). Thirty patients (28%) were of less than 17 weeks gestation at the time saline instillation was first attempted.

Of the 107 patients admitted for saline instillation abortion, 94 (87.8%) were successfully aborted

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FIG. 2.— Distribution of estimated length of gestation.



by this method on the initial attempt. In two patients (1.9%), saline instillation failed to induce abortion within two days, and alternate methods were employed electively. In the remaining 11 patients (10.3%), technical difficulty with amniocentesis (ie, no fluid or body fluid obtained on repeated attempts) prevented the instillation of saline. The outcome of these 13 failures is shown in Table 2.

TABLE 2.— Outcome of failed abortion cases

PATIENT	FOLLOW-UP
1	Readmitted—"spontaneous abortion."
2	Readmitted—two unsuccessful attempts at saline instillation; aborted by laminaria and pitocin.
3	Readmitted—one unsuccessful attempt at saline instillation; aborted by hysterotomy.
4	Readmitted—successful saline abortion.
5	Aborted by D & C.
6	Readmitted—successful saline abortion.
7	Readmitted—"spontaneous abortion"
8	Aborted by pitocin, Foley bag.
9	Readmitted—successful saline abortion.
10	Readmitted—successful saline abortion.
11	Aborted by suction D & C.
12	Aborted by suction D & C.
13	Aborted by suction D & C.

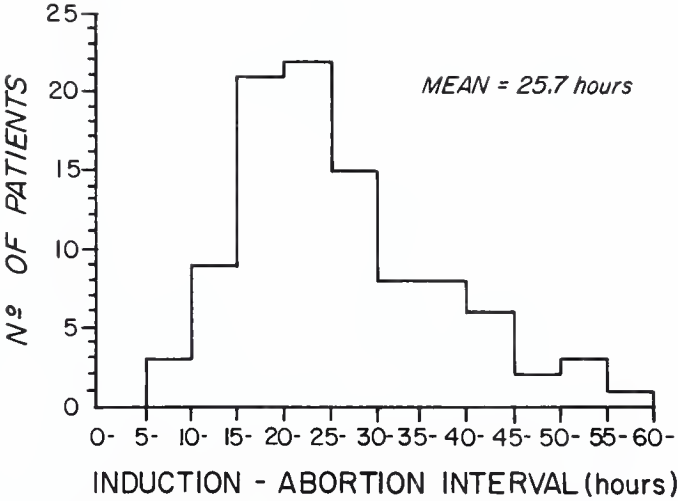
Nearly 30% of the primary attempts at saline instillation abortion failed when the length of gestation was estimated to be 15 to 16 weeks, compared to a 7% failure rate at 17 to 18 weeks (Table 3). No failures occurred when the length of gestation was estimated to be 19 weeks or more.

There was a wide range in the time interval between amniocentesis, saline instillation and expulsion of the fetus (Figure 3). The shortest interval was six hours; the longest was 58.8 hours. The

TABLE 3.— Relationship between estimated length of gestation and failed abortion

ESTIMATED LENGTH OF GESTATION (WKS)	NO. OF PATIENTS	FAILED ABORTION
13-14	2	1 (50%)
15-16	28	8 (28.6%)
17-18	54	4 (7.4%)
19-20	17	0 —
21-22	5	0 —
23-24	1	0 —
TOTAL	107	13 (12.1%)

FIG. 3.— Distribution of induction-abortion interval.



mean induction-abortion interval was 25.7 hours. Gravity did not appear to have an influence on this interval (Table 4).

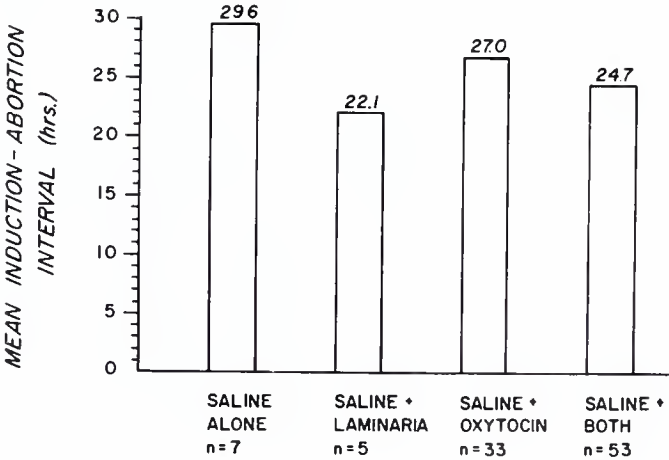
TABLE 4.— Gravity and induction-abortion interval

GRAVIDITY	NO. OF PATIENTS	MEAN INDUCTION-ABORTION INTERVAL
Primigravida	56	26.4
Multigravida	40	24.9
Not Recorded	2	—
	98*	

*Includes all patients successfully aborted by the saline instillation procedure, either on the initial or subsequent attempt.

The difference in the induction-abortion interval associated with the use of one or more supplementary procedures, i.e., laminaria and/or oxytocin, is illustrated in Figure 4. The use of

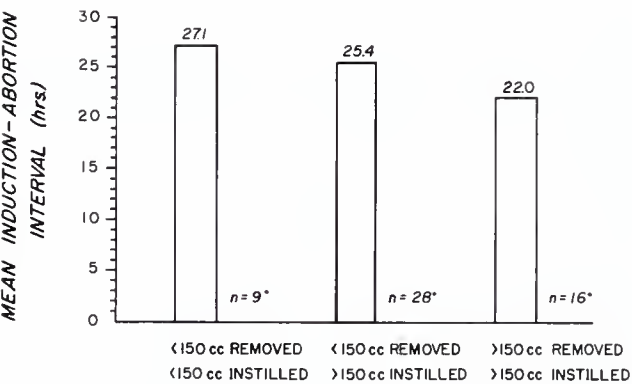
FIG. 4.— Effect of supplementary procedures on induction-abortion interval.



oxytocin did not appear to reduce the interval. On the other hand, when laminaria was used, with or without oxytocin, there was a tendency towards shorter induction-abortion intervals. However, these differences were not found to be statistically significant.

Figure 5 shows the effect of different volumes of amniotic fluid removal and hypertonic saline instillation on the induction-abortion interval. Al-

FIG. 5.—Effect of varying amounts of amniotic fluid removed and hypertonic saline instilled on induction-abortion interval.



*ALL PATIENTS WHO HAD SALINE PLUS LAMINARIA AND OXYTOCIN.

though there was a trend towards shorter intervals as greater volumes of amniotic fluid and hypertonic saline were exchanged, again none of the differences were statistically significant.

Side effects were noted in 30 (30%) of the 100 patients who received an instillation of saline (either on the primary or subsequent attempt). The spectrum of side effects is shown in Table 5, with nausea and vomiting being the most frequently encountered.

TABLE 5.—Side effects

	NO. OF PATIENTS	PERCENT
Nausea and vomiting	23	23
Diarrhea	1	1
Dizziness	3	3
Flushing	5	5
Headache	4	4
Thirst	3	3
TOTAL PATIENTS WITH SIDE EFFECTS*	30	30

*8 patients had 2 or more side effects.

Complications, which in this series of patients includes failed abortions, occurred in 32.7% of the 107 women admitted to Kapiolani Hospital for saline instillation abortion during the period under review. The following criteria were used to define the complications shown in Table 6: (1) failed abortion, either a failure of amniocentesis or failure to abort; (2) accidental intravascular injection of saline, an immediate reaction to saline instillation consistent with this clinical syndrome;

TABLE 6.—Complications

	NO. OF PATIENTS	PERCENT
Failed abortion	13	12.1
Fever	15	14.0
Retained tissue	10	9.4
Hemorrhage	5	4.7
Accidental intravascular injection of saline	2	1.9
TOTAL PATIENTS WITH COMPLICATIONS*	35	32.7

*11 patients had 2 or more complications.

(3) fever, any recorded temperature of 100.6 degrees Fahrenheit or greater; (4) retained tissue, when E & C (examination and curettage) was performed for that indication, and (5) hemorrhage, a decrease in hemoglobin of 2 grams or more.

The most frequent complication was fever, which developed in 15 (14%) of the patients, followed by failed abortion, which occurred in 13 (12.1%). One out of the five patients whose hospital course was complicated by hemorrhage received a transfusion. Eleven patients (10.3%) experienced more than one complication from this method of abortion.

The relationship between length of gestation and complication rate is demonstrated in Table 7.

TABLE 7.—Relationship between length of gestation and rate of complication

LENGTH OF GESTATION (WKS.)	COMPLICATION OCCURRED	NO COMPLICATION OCCURRED	TOTAL
13-16	12 (40%)	18	30
17-20	21 (29.6%)	50	71
21-24	2 (33.3%)	4	6
TOTAL	35	72	107

The highest complication rate (40%) occurred in the 13 to 16 weeks interval; the lowest (29.6%) was in the 17 to 20 weeks interval. Complications again increased in incidence when the length of gestation exceeded 20 weeks. Gravity seemed to have no association with the complication rate (Table 8). However, the relationship of age to

TABLE 8.—Relationship between gravity and rate of complication

GRAVIDITY	COMPLICATION OCCURRED	NO COMPLICATION OCCURRED	TOTAL
Primigravida	20 (32.3%)	42	62
Multigravida	15 (34.9%)	28	43
Not recorded	0 (—)	2	2
TOTAL	35 (32.7%)	72	107

complications shown in Table 9 clearly indicates the greater risk to the very young patient (15 years and under) and the older patient (30 years and over). The complication rates for these two age

TABLE 9. Relationship between age and rate of complication

AGE (YRS.)	COMPLICATION OCCURRED	NO COMPLICATION OCCURRED	TOTAL
≤ 15	5 (50%)	5	10
16-19	14 (33.3%)	28	42
20-24	9 (27.3%)	24	33
25-29	3 (25%)	9	12
≥ 30	4 (40%)	6	10
TOTAL	35 (32.7%)	72	107

categories were 50% and 40%, respectively, compared to a rate of 25% to 29 years category.

Discussion

The mean induction-abortion interval in this series of patients compares favorably with figures from other reviews. The use of laminaria as an adjunct to saline instillation appeared to shorten the interval, although the difference was not found to be statistically significant. This factor was previously studied at Kapiolani Hospital by Hale and Pion, who concluded that laminaria does reduce the interval to abortion.¹

Another factor reported to have an effect on the induction-abortion interval is the relative amount of amniotic fluid and hypertonic saline exchanged. R. C. Goodlin and co-workers reported a shortened interval when the amount of saline instilled exceeded the amount of amniotic fluid removed by 50 to 200%.² More recently, R. Weiss et al reported that a critical level of sodium concentration in the amniotic fluid had to be achieved in order to have a high probability of successful abortion within 48 hours.³ The data from this review tend to support the theory that change in osmolality is an important causal factor in the abortion process. The group of patients having greater than 150 cc of amniotic fluid removed and greater than 150 cc of hypertonic saline instilled had the shortest interval to abortion.

Although intraamniotic instillation of hypertonic saline has generally been shown to be an effective means of terminating pregnancy in the midtrimester, the attendant risk of complications must be considered. In this series of 107 patients, 32.7% experienced one or more complications, in-

cluding failed abortion, from this procedure. The failure rate was particularly high when saline instillation was attempted prior to the 17th week of gestation. Technical difficulty in dealing with a small uterus is implied, since all but two of the thirteen failures were due to inability to establish a free flow of amniotic fluid. Therefore, it would seem advisable to delay this procedure until the length of gestation is estimated to be 17 weeks or more. MacKenzie et al at St. Luke's Hospital Center in New York reported similar findings.⁴

Age was also a factor in the incidence of complications in this series. Higher rates were found in the very young patients (15 and under) and in the older patients (30 and over).

While the complications encountered were minor in the majority of instances, it should be noted that the incidence of these complications as well as the induction-abortion interval determine the length of hospitalization, and consequently, the cost of this procedure. In addition, it should be remembered that the only reported death from therapeutic abortion in Hawaii since the enactment of the State's liberalized abortion law in March 1970 was associated with the saline instillation procedure.⁵ Therefore, it behooves us as physicians to exercise careful judgment in the selection of patients and to pay particular attention to proper technique.

Ideally, the need for midtrimester abortion should not arise. Early abortion procedures reduce both the cost and the risk of complications to the patient. Continued efforts should be aimed at identifying the reasons for delay in obtaining abortion and eliminating as many social, political, and economic barriers as possible. This is particularly important in view of the fact that we are dealing primarily with a population of young, single women at the beginning of their reproductive years.

In the meantime, since it is anticipated that the need or demand for midtrimester abortion will be with us for some time to come, periodic reviews of current methods will enable us to evaluate newer methods in light of the most recent information. In this way, women seeking abortion will have the benefit of being attended by physicians utilizing the most efficacious and safest methods available.

Acknowledgement

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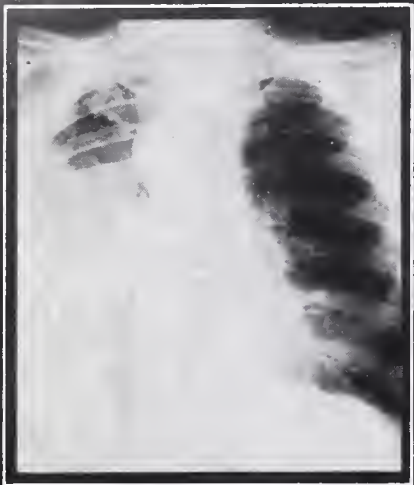
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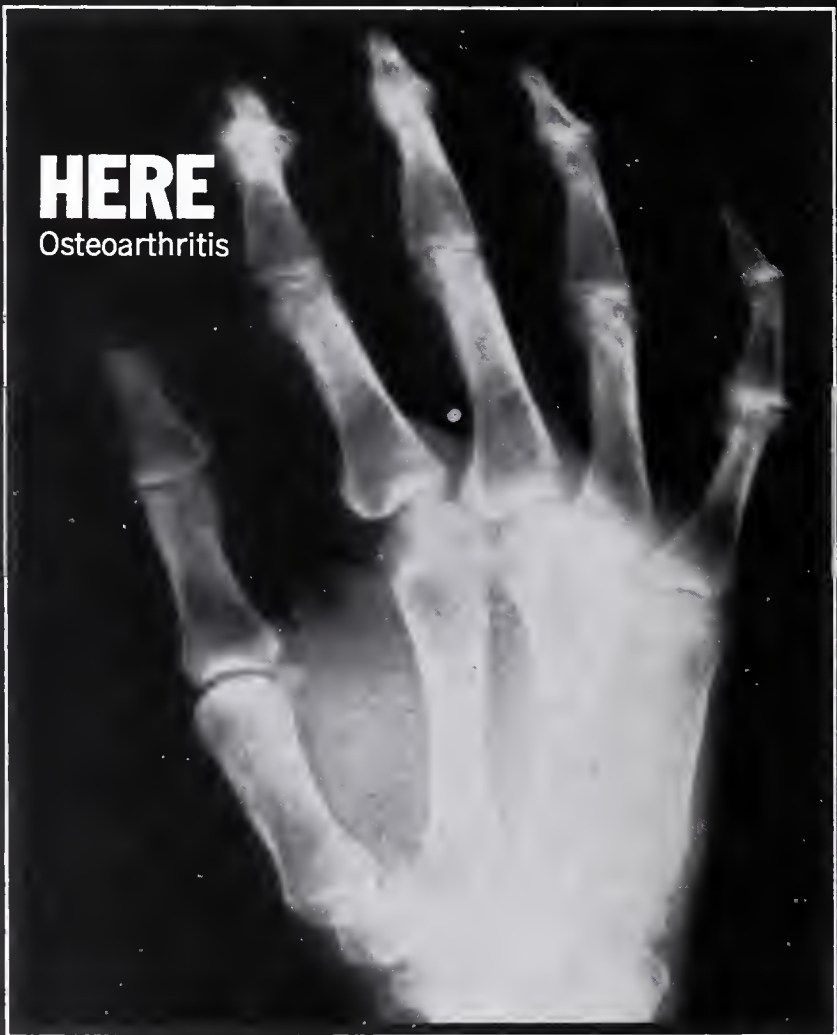
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Fecundity, Fertility, Demographers, and Doctors

Demographers, like physicians and other professionals, have developed a highly specialized vocabulary suitable to their needs. Usually their speech is consistent with the language spoken by other technicians and laymen. Occasionally, however, they run the risk of misunderstanding.

A recent demographic text, for example, lists the following measures of natality: crude birth rate, age-sex adjusted birth rate, general fertility rate, general marital fertility rate, total fertility rate, completed fertility rate, general fertility ratio, completed family size, gross reproduction rate, and net reproduction rate.¹ Descriptions of these rates and ratios are preceded by an extensive discussion of the distinctions between statistics on *births*, *natality*, *fecundity*, and *fertility*.

It is the last two of these terms, fecundity and fertility, that are most likely to prove troublesome, at least to physicians and Frenchmen. Petersen has written: "The terms *fecundity* and *fertility*, originally used synonymously, were differentiated from one another only gradually. In 1934 the Population Association of America officially endorsed the distinction between *fecundity*, the physiological ability to reproduce; and *fertility*, the realization of this potential, the actual birth performance as

measured by the number of offspring." He then goes on to quote the United Nations *Multilingual Demographic Dictionary* entry stating that "in many Latin languages, the etymological equivalents of fertility and fecundity are used in a sense diametrically opposite to that in English. Thus, the French *fecondite* or the Spanish *fecondidad* are properly translated by fertility, and *fertilite* or *fertilidad* by fecundity. It should also be noted that although the conventions outlined above are generally followed by demographers, the terms fertility and fecundity are used much more loosely in medical literature, where they are sometimes treated as being almost synonymous." Petersen concludes by noting that the 1956 edition of *Blakiston's New Gould Medical Dictionary* agrees with demographers' usage but in *Stedman's Medical Dictionary* (1957) "the meanings are not distinguished."²

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*Hawaii State Department of
Planning and Economic Development*

¹ U.S. Bureau of the Census: *The Methods and Materials of Demography*, Vol. 2, pp. 462-539, Washington, U.S. Government Printing Office, 1971.

² Petersen, William: *Population*, 2nd ed., p. 173, New York, The Macmillan Co., 1969.

Office Treatment of Leprosy

Leprosy is endemic in Hawaii, although relatively uncommon. While most recently diagnosed patients here are of Filipino or Samoan origin, no race, age, or sex is exempt.

To us who witnessed the dramatic therapeutic transformation of the 1940's, from hopelessness (often expressed in blindness, deformity, and need for tracheostomy) to the present era in which leprosy, diagnosed early, may be fully arrested, failure of diagnosis can be seen as one of life's greatest tragedies. It is essential that prompt and adequate treatment follow early and accurate diagnosis.

Too often this does not happen, because a physician has too low an index of suspicion, or lacks experience in recognizing early evidence. Thus

serious, often irremediable, complications may occur.

The practicing physician, seeing a possible case of leprosy, has three basic responsibilities. First, to be alert and suspect the diagnosis. Second, to confirm or refute the diagnosis. Third, when the diagnosis is positive, to provide promptly the best and most up-to-date treatment—whether by himself or by a readily available consultant.

Further help may now be found in the second edition of a compact but detailed work, "Leprosy—Diagnosis and Management" by Harry L. Arnold, Jr., M.D. and Paul Fasal, M.D. The book is reviewed in this issue, page 270

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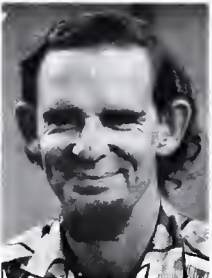
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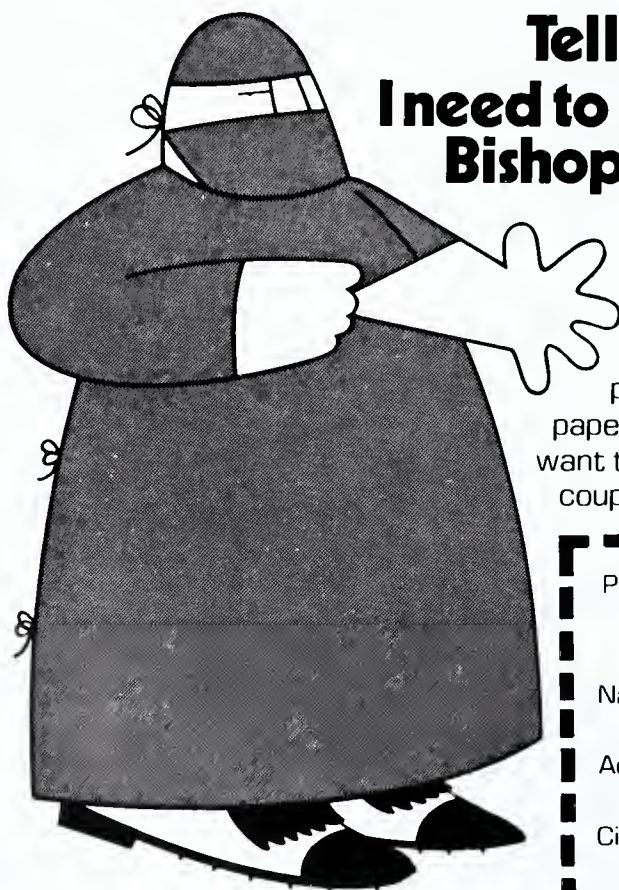
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The annual meeting for the one hundred and seventeenth year of corporate existence of the Hawaii Medical Association was held in Honolulu in 1973. The following program was presented.

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Acute Abdominal Trauma

Marshall J. Orloff, M.D.

The Treatment of Fractures Complicated by Vascular Injury

William T. Fitts, Jr., M.D.

National Status of Emergency Services

Henry C. Huntley, M.D.

The Plan for Emergency Medical Services in Illinois

David R. Boyd, M.D.C.M.

The Plan for Emergency Medical Services in Hawaii

Livingston M.F. Wong, M.D.

The Los Angeles County Paramedical Program

J. Michael Criley, M.D.

Education and Training for Emergency Medical Services

David R. Boyd, M.D.C.M.

Long-term Followup of Patients Resuscitated in the Field by Paramedics

J. Michael Criley, M.D.

Responsibilities and Relationships of Emergency Departments and Ambulance Services

Henry C. Huntley, M.D.

The Role of Measurements and Monitoring in Respiratory Failure

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The Treatment of Liver Injuries

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Post Operative Pulmonary Complications

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Critical Care and Intensive Physiologic Monitoring of the Seriously Ill Surgical

Patient—David R. Boyd, MDCM

The Prevention of Death after Injuries

William T. Fitts, Jr., M.D.

Newborn Intensive Care Units—the Brain at Risk

Patrick F. Bray, M.D.

The Care of Acute Burns

James H. Penoff, M.D.

Hospital Planning for Disaster

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Acute Respiratory Failure in Patients with COPD

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Increased Pressure in the Head

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Evaluation of the Bleeding Patient

Robert C. Flair, M.D.

Priorities in the Care of Patients with Multiple Injuries

William T. Fitts, Jr., M.D.

Presidential Address

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The Problem of Thromboembolism after Injuries

William T. Fitts, Jr., M.D.

The First Seizure and Parental Panic

Patrick F. Bray, M.D.

Fresh and Salt Water Drowning

Robert H. Moser, M.D.

Cardiopulmonary Resuscitation

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The Diagnosis and Management of Upper Gastrointestinal Bleeding

Lawrence F. Johnson, M.D., Lt. Col.

Evaluation of the Unconscious Patient

Robert C. Hinman, M.D.

Interstitial Hemorrhagic Pulmonary Edema

D. Boyd Bigelow, M.D.

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Sportsmen's Night, Natsunoya Teahouse

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Fireside Chats, Ilikai Hotel
Woman's Auxiliary, Home of Dr. and
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PROCEEDINGS OF THE HOUSE OF DELEGATES

November 4-5, 1972
Special Meeting

The first session of the special House of Delegates of the Hawaii Medical Association was called to order by the president, William E. Iaconetti, at 9:00 a.m., Saturday, November 4, 1972, in the Mabel Smyth Auditorium.

Present were (officers) William E. Iaconetti, Herbert Y. H. Chinn, R. Varian Sloan, Grover H. Batten; (county presidents) DeWitt H. Smith, Winfred Y. Lee, Katok Chuang, Denis Fu; (councillors) Ed B. Helms, William W.L. Dang, George Goto, J.I.F. Reppun, Peter Kim, Sakae Uehara; (AMA Delegate) George H. Mills; (past presidents) Harry L. Arnold, Jr., John J. Lowrey, O.D. Pinkerton, B. Allen Richardson, Rodney T. West, Samuel Yee; (Hawaii County delegates) Edward B. Underwood, Milton M. Howell; (Honolulu delegates) Fred I. Gilbert, Anna M. Brault, Clifford Chang, Edward Chesne, Charles T.H. Ching, Masato Hasegawa, Frederick A. Dodge, George M. Ewing, Jordon S. Popper, William Goebert, Gail G. L. Li, Gordon Liu, Ann B. Catts, Robert Nordyke, Robert Oishi, Carl H. Lum, Calvin C.J. Sia, Henry T. Oyama, Arthur K. Wong, Henry N. Yokoyama, and Victor Hay-Roe. Dr. Arnold was appointed to serve as parliamentarian.

Reference Committees were appointed as follows: Committee on Officers, Council, and House of Delegates—William Dang, Chairman, John J. Lowrey, R. Varian Sloan, Sakae Uehara, Katok A. Chuang, Ed B. Helms and Samuel Yee; Committee on Commissions and Committees—Winfred Y. Lee, Chairman, Clifford Chang, Calvin Sia, DeWitt Smith, Harry L. Arnold, Jr., Rodney T. West; Committee on Miscellaneous Business—J.I.F. Reppun, Chairman, Grover H. Batten, Peter Kim, George M. Ewing, B. Allen Richardson.

It was voted to reconvene the House of Delegates on November 5 at 10:00 a.m.

The Reference Committees were in session November 4, 1972, beginning at 10:00 a.m.

The second session of the House of Delegates was called to order on Sunday, November 5, 1972, at 10:00 a.m. The executive director called the roll.

Dr. R. Varian Sloan was absent the second day. Dr. Roger Brault was seated as Honolulu delegate.

The House of Delegates was convened to review the recommendations of the Ad Hoc Committee on the AMA Study of HMA and appropriate Bylaws changes. There were six resolutions presented to the House as follows:

RESOLUTION NO. 1—RE: BYLAWS—ADOPTED

RESOLVED, that the Bylaws Committee recodify and reclarify as appropriate the sections and chapters of the Charter and Bylaws as well as correct and remove inconsistencies in accordance with the actions of the House of Delegates and the Constitutional Convention, November 1972.

RESOLUTION NO. 2—RE: HAWAII FOUNDATION FOR MEDICAL CARE—ADOPTED

RESOLVED, that the House of Delegates accept the recommendation for the transfer of sponsorship of the Hawaii Foundation for Medical Care in accordance with the action of the Council on October 13, 1972 and in accordance with the terms specified by the Council and that the HMA affirms its acceptance of the responsibility for the continuation of the Hawaii Foundation for Medical Care.

RESOLUTION NO. 3—RE: CANCER COMMITTEE AND CANCER COMMISSION—ADOPTED AS AMENDED

RESOLVED, that the House of Delegates amend Resolution No. 3 to conform with Section 8.124 of the Bylaws.

RESOLUTION NO. 4—RE: COUNTY PRESIDENTS—ADOPTED

RESOLVED, that presidents of county medical societies be exofficio voting members of the HMA Council.

RESOLUTION NO. 5—RE: BYLAWS CHANGES REGARDING MEMBERSHIP—NOT ADOPTED (Recommendations of this resolution were included in the Bylaws by other reference committees.)

RESOLUTION NO. 6—RE: DISBURSEMENTS OF HMA FUNDS—NOT ADOPTED

Actions regarding bylaws changes have been incorporated in the Bylaws and will be published for the membership in the next edition of the HMA Roster.

In addition to action regarding Bylaws revisions, the following motions were adopted:

(1) The Council was directed to work with the committees and staff of the HMA to develop a personnel manual for the Association, this manual to be completed by May 1, 1973 and to include adequate job descriptions for all HMA personnel.

(2) Agreed that expenses for county presidents attendance at Council meetings be borne by the respective county medical societies.

(3) Recommended that the component societies review their own Bylaws to bring them in line with the newly adopted section on Disciplinary Action (Bylaws, section 2.10-2.105)

(4) Directed the development of a "Rules and Regulations Handbook" to be developed and kept current by the Executive Director with the assistance of the respective commissioners and committee chairmen, as approved or amended by the Council.

(5) The Council was directed to utilize all resources, including the report of the Ad Hoc Committee on the AMA Study of HMA, to (a) study the housing needs of the HMA for the next ten to twenty-five years, and (b) prepare a report of their findings. The Council to provide for perusal at the next HMA House of Delegates: (a) the housing program of their choice; (b) alternative methods to accomplish this program with specific direction as to time and cost.

(6) Those portions of the Ad Hoc Committee on the AMA Study of HMA which were not taken up because they did not relate to the Bylaws will be taken up in order by the Council.

The meeting adjourned at 3:00 p.m.

Respectfully submitted,
R. Varian Sloan, M.D.
Secretary

PROCEEDINGS OF THE HOUSE OF DELEGATES

117th Annual Meeting of the Hawaii Medical Association

The first session of the House of Delegates of the Hawaii Medical Association was called to order by the president, William E. Iaconetti, at 1:00 p.m., May 1, 1973, in the Bora Bora Room of the Ilikai Hotel.

Mr. Tom Thorson, HMA Executive Director, called the roll. Present were William E. Iaconetti, Thomas P. Frissell, Herbert Y.H. Chinn, Grover H. Batten, DeWitt H. Smith, William Dang, John Withers, Verne Adams, Douglas B. Bell II, Ann Catts, Albert Chun-Hoon, George Goto, William Moore, Henry Oyama, Winfred Lee, J.I.F. Reppun, Peter Kim, Sakae Uehara, George H. Mills, John Lowrey, Toru Nishigaya, Rodney West, Denis Fu, Marion Hanlon, John Morris, Yonemichi Miyashiro, Paul J. Caldwell, Richard Lundborg, Moon S. Park, Alan Pavel, Clifford Chang, Edwin Ballard, Charles Ching, George Ewing, Charles S. Judd Jr., Walter W.Y. Chang, H. William Goebert Jr., Victor Hay-Roe, Gordon Liu, Robert Nordyke, Robert Oishi, Michael Okihiro, Stephen Tenby, Niall Scully, Calvin Sia, Theodore Tseu, Quintin Uy, Philip H.F. Watt, Walter H.K. Watt, Arthur Wong, Henry Yim, Henry Yokoyama.

Dr. Harry Arnold Jr. was appointed parliamentarian. Drs. George Goto and Victor Hay-Roe were appointed sergeants-at-arms.

A film entitled "The Tree" was shown to the House. Dr. Russell Roth, president-elect of the AMA, addressed the House and presented a membership award to Dr. Iaconetti.

The minutes of the 116th Annual Meeting as well as the Special Meeting of the House of Delegates held in November 1972 were approved as published.

The reports of the President, Secretary, Treasurer as well as those of the component societies were included in the delegates handbook and referred as indicated. The resolutions were read and assigned to reference committees.

Reference Committees were appointed as follows: Public Health—Calvin Sia, Ann Catts, George Ewing, Marion Hanlon, Paul Caldwell, and Yonemichi Miyashiro; Peer Review and Medical Services—Albert Chun-Hoon, Denis Fu, Robert Nordyke, Robert Oishi, Alan Pavel, and Moon Park; Miscellaneous Business—Douglas B. Bell II, Theodore Tseu, H. William Goebert, Richard Lundborg, and John Morris; Finance—Sakae Uehara, Verne Adams, George Goto, Winfred Lee, Henry Oyama, and Rodney West.

* * *

The Reference Committees were in session May 1, 1973, beginning at 1:45 p.m.

* * *

The second session of the House of Delegates was called to order on Thursday, May 3, 1973, at 1:00 p.m.

Honolulu delegates Alan Pavel, Gordon Liu, Quintin Uy, Philip H.F. Watt, Arthur Wong, Henry Yim and Henry Yokoyama were absent the second day. Dr. Francis Won was seated as a delegate from Honolulu.

Dr. Roth spoke on the Mediredit bill presently before Congress. The House voted to reaffirm the HMA position in favor of Mediredit.

PUBLIC HEALTH REFERENCE COMMITTEE

CANCER COMMITTEE

HOUSE ACTION: Adopted as follows:

The Cancer Committee engaged in the following activities during the past year:

(1) Explored the possibility of the Blood Bank of Hawaii purchasing a blood cell separator. The Bank was not receptive, however, in view of the high cost of purchase, maintenance, staffing by trained personnel, lack of space, etc.

(2) Clarified the relationship of the Cancer Commission to the Cancer Committee, that is, the Commission is directly responsible to the HMA President and submits minutes of each meeting to the Cancer Committee, DOH, Cancer Society, and School of Medicine.

(3) Participated in the selection of the panelists for the public forum on "Cancer in Hawaii."

(4) Compiled an inventory of the different cancer research projects being conducted in the state.

(5) In regard to the Cancer Research Center of Hawaii, the Committee took the following action:

(a) Recommend to the HMA Council that the Executive Committee be composed of 4 members from the Hawaii Medical Association, 4 members from the University of Hawaii, 2 from the American Cancer Society, 1 from the Hawaii Association of Hospitals and 1 from the Department of Health; that the Executive Committee be a policy making and not advisory committee; proposed policies for the Executive Committee; that the project director be responsible to the Executive Committee.

(b) Accepted the responsibility of developing a clinical cancer program from the Cancer Research Center. Temporary heads of the surgical, chemotherapy, immunology, radiology, radiotherapy and control, prevention and detection sections were appointed.

(c) Participated in the interview of prospective candidates for the position of Chief Executive Officer of the Center.

(6) Endorsed and participated in the American Cancer Society sponsored Tom Lee Memorial which is to inform the public about cancer and motivate them to protect themselves by periodic medical examinations for cancer.

(7) Approved the proposal from the Pacific Health Institute to the National Cancer Society on the earlier detection of breast cancer.

(8) Continued to have good working relationships with other organizations such as the Cancer Commission, the American Cancer Society, the Research Corporation of the University of Hawaii and Tripler Army Hospital.

Recommendations:

(1) That HMA continue its efforts to obtain and maintain a blood cell separator for the State.

(2) Continue to develop the clinical cancer program and participate actively in the Cancer Research Center of Hawaii.

(3) Continue close liaison with the Cancer Commission, the American Cancer Society, the Research Corporation of the University of Hawaii and Tripler Army Hospital, and Department of Health.

The Chairman would like to take this opportunity to officially thank the members of the Committee and our efficient secretary, Mrs. Reda Kellar for their interest and assistance.

Thomas K.L. Lau, M.D.

CANCER COMMISSION

HOUSE ACTION: Adopted as follows:

The Hawaii Tumor Registry program was greatly strengthened this past year with increased funding allowing program expansion. This was made possible through a contract between the Hawaii Medical Association and the Research Corporation of the University of Hawaii who, in turn, effected a contract between themselves and the National Cancer Institute.

Through this mechanism the Hawaii Tumor Registry will be able to be updated, data can be supplied to the Research Corporation of the University of Hawaii and to the National Cancer Institute. Also, the Hawaii Tumor Registry is expected to provide data to the End Results Group of the National Can-

cer Institute and Hawaii Tumor Registry. All use of the Hawaii Tumor Registry data, and all projects basing research upon the Hawaii Tumor Registry's files are subject to prior approval by the Cancer Commission of the Hawaii Medical Association and confidentiality will be insured.

Many meetings of involved parties were held to effect this contract between HMA and RCUH. It covered the period June 15, 1972 through January 31, 1973 and was later extended through February 28, 1973. A second contract for the period March 1, 1973 through August 31, 1974 (18 months) has been signed with the Research Corporation of the University of Hawaii. It is essentially similar to the first one.

Funds obtained from the Hawaii Division, American Cancer Society have supported one very important staff position on the registry and also some staff training.

The Hawaii Tumor Registry staff now stands at 8 and is up to strength.

Today all cases of cancer diagnosed and treated in Hawaiian hospitals during the period January 1, 1960 thru June 30, 1971 have been abstracted and incorporated into the Hawaii Tumor Registry records. Most hospitals are current through June 30, 1972. Almost all of these cases are now in the Hawaii Tumor Registry computer files.

To further progress, several new staff members will take special registry training.

The 1973 Hawaii State Legislature passed a bill for an act which will enable researchers to obtain names of cancer patients from the Hawaii Tumor Registry for study. To obtain this confidential information, the act specifically states that the researcher must obtain the approval of his project from the Cancer Commission of the Hawaii Medical Association. The Commission, in turn, will see to it that such information is made available only to research projects that are well conceived, potentially productive, and contain provisions that obviate undue invasion of privacy.

In accordance with the Hawaii Medical Association Bylaws' change of November 1972, Drs. Kenneth Gardner and Ralph Hale were added to the Cancer Commission.

This has been a productive year and the coming one promises to be even more so.

Grover H. Batten, M.D.

CHRONIC ILLNESS

HOUSE ACTION: Adopted with recommendation that the committee take leadership in pursuing screening for hypertension.

The Committee on Chronic Illness met several times during the summer of 1972 to discuss the name and function of the committee. Since the work of the previous committees in the area of aging has brought about an increase in community interest and the establishment of the Hawaii Commission on Aging, it was decided that aging as a special problem be dropped from the name and the special concerns of this committee. Chronic Illness became the new committee name and the purpose of the committee is to be concerned with problems of chronic illness which cross all age groups. Dr. W. Miyahira continued the direction of the diabetic screening at Queens and the support of summer camps for diabetic children.

Dr. Orbison headed a subcommittee to extend screening for hypertension.

A subcommittee headed by Dr. K.Y. Lum met with Dr. Aldon Roat to discuss issues relative to the changes in the Mental Health Division in the State Hospital.

Charlotte Florine, M.D.

CRIPPLED CHILDREN

HOUSE ACTION: Adopted as follows:

During the past year three meetings of this Committee were

held. The first one was a combined special meeting of School Health and crippled children to discuss the recommendations of Social Services and Housing in regards to the Congressional mandate requiring all States to provide early screening, diagnosis and treatment of eligible individuals under age 21 under Title XIX, Medicaid program.

During this meeting it was moved, seconded and passed that the Hawaii Medical Association encourage the development of a total health maintenance program for the Medicaid family rather than screening per se, and that this health maintenance facility should relate to the ongoing medical care facilities of the community at large (be it a private physician's office, hospital or group clinic) and not be brought into current or new governmental structures.

Other meetings were held in regard to the programs of the Crippled Children Branch of the Department of Health especially the shortage of budget in carrying out the services for the handicapped children. Recommendations included eliminating from the program certain categories which are not chronically handicapping, including certain cosmetic surgery.

D.V. Reddy, M.D.

COMMUNICABLE DISEASE

HOUSE ACTION: Adopted.

The following are the activities of the Communicable Disease Committee for the past year:

(1) Immunizations

(a) Do not favor the establishment of general immunization clinical services for children in special geographical areas as proposed by the Department of Health. This stand was taken in view of the, "Statement on School Health Functions, Oct. '71," which states that the primary health care of the patient should be the responsibility of the private physician as well as the parents and school.

(b) Endorses the catch-up measles (rubeola) program as proposed by the Department of Health for specific areas on Oahu with high measles rate—Waialua, Leeward Coast and the Kailua-Kaneohe districts. The program is to begin in the fall '73 only after the patients are urged to seek immunizations from private physicians and clinics before the summer.

(c) Smallpox. Favor doing away with compulsory smallpox immunization in Hawaii and instead place the requirement for smallpox immunization under the discretion of the Department of Health who may make regulations governing its use for special situations and for persons of special risk.

(2) Venereal Disease

Continue to work actively in the comprehensive program to combat venereal disease.

Recommendations: That the HMA endorse the doing away with compulsory smallpox immunization in Hawaii and place the requirement for smallpox immunization under the discretion of the Department of Health.

L.T. Chun, M.D.

ENVIRONMENTAL HEALTH

HOUSE ACTION: Adopted with recommendation that the committee consult with the Department of Health on matters relating to environmental health prior to releases to the news media.

The Environmental Health Committee met formally five times during this past year and informally through telephone communications. We were represented on the Department of Health Sugar Cane Burning Committee and were a cosponsor of a public mass transit forum. A cane burning allergy study

was initiated by one of the committee members on various subjects to the State Legislature and at Department of Health hearings.

The issues that the Environmental Health Committee considered during the year were far reaching ones involving not only the medical profession but including considerations of our community as a whole, for example we were involved in questions of the reef runway, population and urban planning, and land use in Hawaii. Because of the nature of these issues, the issues themselves being controversial, because of the lack of specific expertise in such subjects among committee members (and possibly among HMA members), because of the lack of full-time people in environmental health such as the Department of Health or the University might have, and because of fragmentation of knowledge that we thus present, it is difficult to decide the role and purpose and function of a committee such as this. It should be considered that a more effective way of HMA being involved in environmental affairs is to lobby for representation of interested members on government committees and lay groups where we as physicians can work side by side with other people who are fully devoted to environmental health matters.

Leigh Sakamaki, M.D.

EMERGENCY MEDICAL SERVICES—HAWAII

HOUSE ACTION: Adopted

Introduction:

On November 19, 1971, a grant was awarded to the City & County of Honolulu by the Highway Safety Coordinator's Office. The purpose of this grant was to train all ambulance personnel in the State of Hawaii as Emergency Medical Technicians. After the onset of this program, it was felt necessary to expand this small segment into a total emergency medical services system for the State. Thus a grant application was submitted by the Hawaii Medical Association to the Regional Medical Program Services in Washington, D.C. through Regional Medical Program-Hawaii. The response was favorable and the project was funded on September 1, 1972, for a two-year period ending October 31, 1974.

The Emergency Medical Services Program is divided into three major divisions: equipping, training, and hospital categorization. Each of these divisions has its own staff all of whom are responsible to the Project Director. Two committees were established to assist the program in achieving its goals and objectives. The two committees are as follows: Advisory Committee and the Executive Committee. The Advisory Committee is comprised of representatives of local health and consumer agencies throughout the State. Its primary function is to develop legislation, public education and information. The Executive Committee assists in the overall administration of the program. The membership is comprised of representatives of Hawaii Medical Association, Hospital Association of Hawaii, and the Department of Health.

Goals and Objectives:

Within the two-year time period the program will accomplish the following objectives:

1. Development of specialized emergency physicians, nurses and physician support personnel (Emergency Medical Technicians and Mobile Intensive Care Technicians) who by continuous training and retraining programs will develop high skills and proficiency in all life-support techniques and emergency treatment. They will staff the ambulances and emergency facilities throughout Hawaii to ensure high quality emergency care.
2. Investigation, categorization and up-grading of the emergency departments and equipment in these departments throughout Hawaii.
3. Development of fleets of ambulances equipped and designed to be capable of all necessary emergency life-support activities.

4. Development of a statewide communications system serving Oahu, Maui, Hawaii, Kauai, Lanai and Molokai for emergency medical services including mass disasters.
5. Development of a uniform mechanism for the reporting of emergencies as well as develop standard directional aids to assist the public in locating emergency facilities.
6. Development of a comprehensive program of data collection, statistical analysis and quality evaluation of all emergency services throughout the State.

Progress to Date:

Training programs are already in progress for ambulance personnel, plus a training course for Emergency Room Nurses and Physicians to keep them up-to-date on emergency care trends.

Summary:

In summary the Emergency Medical Services Program has been established to improve upon the current emergency capabilities throughout the State of Hawaii. The training of all emergency care personnel, the up-grading of hospital emergency facilities and the establishment of a statewide medical communication network will assist in achieving this goal. The data collection form used by the ambulance personnel will then hopefully measure the accomplishment of the program and its effect on the present system.

Herbert Y.H. Chinn, M.D.

SCHOOL HEALTH

HOUSE ACTION: Adopted.

The committee has met monthly since December 1972. The committee has worked to inform State Legislators regarding the second year experience of the School Health Services Pilot Project and has requested that the program be made into a permanent one. Because of the deficit in the State budget, the program will be continued as a pilot program and the Legislative Auditors has been asked to evaluate the program.

The committee is now investigating the feasibility of utilizing prekindergarten screening tests to see which children may have learning problems when they enter school.

Roy F. Kuboyama, M.D.

SUBSTANCE ABUSE

HOUSE ACTION: Adopted with expression of gratitude for the work of the chairman

Members of the HMA Substance Abuse Committee have met regularly during the past year and have concentrated their activities in the following areas:

(1) Consultation has been provided to the Department of Health concerning regulations governing the State's Uniform Controlled Substances Act (Act 10) and testimony has been submitted to the current legislature concerning the amendment of Act 10 to provide the continued right of the physician to dispense controlled substances. It is anticipated that further consultation with the Department of Health will be necessary to implement changes in the regulations should Act 10 be amended.

(2) Additional legislative testimony has been provided concerning proposed bills which would have restricted the right of the physician to dispense any type of medication, except under very special circumstances. Since this legislation is similar to that concerning Act 10 and since we have no Pharmacy Committee at present, the Substance Abuse Committee has assumed responsibility in this area.

(3) Committee members have participated as members of the Governor's Substance Abuse Committee. The latter committee essentially evolved out of HMA's task force headed by Dr. Charles Stewart in 1970. This group, at the request of the State Legislature, prepared an analysis of the substance

abuse problem in Hawaii and provided specific recommendations for a statewide substance abuse plan. While the Governor's Committee was initially an advisory committee, it has become progressively more action-oriented and hopefully will soon achieve commission status. Our Substance Abuse Committee Chairman currently serves as chairman of the Governor's Committee.

(4) Efforts to educate our fellow physicians as well as the community at large in the area of substance abuse have included the promotion of "Warm-line", a call-in service providing information concerning management of patients intoxicated from abuse of narcotics, depressants, stimulants or hallucinogenic substances, participation by committee members in Hotline programs regarding substance abuse, and endorsement and promotion of a Regional Medical Program booklet on drug abuse in Hawaii written by three members of this committee.

It is recommended that committee activity in the above areas continue in the following year. It is further recommended that the Pharmacy Committee be reactivated, or that its duties be assigned to the Substance Abuse Committee. Should this committee assume these responsibilities, it should be mandated to establish better liaison with the Hawaii Pharmaceutical Association; and to develop and disseminate to HMA members information concerning the proper labeling and dispensing of medications and the maintenance of appropriate records, particularly in the area of controlled substances.

Neal E. Winn, M.D.

PUBLIC SAFETY

HOUSE ACTION: Adopted as follows:

The Public Safety Committee had two meetings during the year. Its functions were defined as follows—"will be an advisory body to the Commission on Public Health on matters relating to automotive safety, water safety and radiation. It shall study legislation pertaining to medical aspects of safety and make recommendations. It shall work with doctors, hospitals and government agencies in surveillance of radiation to insure safety to patients and personnel. It shall review statistical data on accidents and promote safety programs for community benefit." Subcommittees on radiation, water and automotive safety were formed and statistics from the Injury Control Branch were studied. No specific actions were undertaken.

Recommendations: Even though the Committee was relatively inactive, it should be continued.

Truett V. Bennett, M.D.

COMMISSION ON PUBLIC HEALTH

HOUSE ACTION: Adopted.

The Commission on Public Health consists of the following committees: Cancer, Chronic Diseases, Crippled Children, Communicable Disease, Environmental Health, Public Safety, School Health, and Substance Abuse. The reports of these committees are noted. Each Committee and its Chairman have spent considerable time and energy this past year in developing programs, policies, and plans respective to its functions. They are to be congratulated; the reports speak for themselves.

In addition to coordinating the above committees, I represented the Hawaii Medical Association in two major areas of development: (1) A Plan for Special Education in the Department of Education, and (2) Discussion with the Department of Social Service on Early Periodic Screening, Diagnosis and Treatment under Title 19. These are still in the planning phase with hopeful implementation in the near future.

Recommendations:

(1) Pursue the Substance Abuse Committee's report by developing a Pharmacy Subcommittee within the

Substance Abuse Committee and improving the public relations with the Hawaii Pharmaceutical Association.

- (2) Continue to encourage a "medical home" for all patients by establishing preventive health care measures within the medical diagnostic and treatment setting. Early Periodic Screening Diagnosis and Treatment (Title 19) should not be separated from the primary health care resource if at all possible. A "medical home" thus may be a physician's office or a clinic, private or public.
- (3) Reaffirm the concept that the parents' have the primary responsibility in seeking medical care for the child with his physician in any school health program. We do not favor routine immunizations or mass screening physical examinations performed in schools that may delay a child's establishment to a "medical home".
- (4) Maintain current Committees under the Commission of Public Health for another year.

Calvin C.J. Sia, M.D.

HAWAII COUNTY

HOUSE ACTION: Filed.

Hawaii County continues to be short of doctors. Improvement of the resources of the hospitals for diagnosis and care continues vigorously. Arrival of new doctors highly trained in general and subspecialty surgery and internal medicine greatly increases capacity to care for serious illness. However, through retirement, aging and departure from the island, the general practitioner resources are depleted. Despite accession of ten new members in 1973 to the County Society (which includes all but two or three doctors on the island), the net gain has been small.

This Society has carried on its traditional meetings each month at which speakers have presented their fields of concern and expertise. Especially noted were Doctors Robert Moser of Maui speaking on "Drug Interaction", and Dr. Alexander Roth presenting "The Last Ten Year's Remarkable Advances in Allergies".

New for the year are efforts to move into concern of the public in various aspects of medicine. A statement in the local paper concerned changes in socio-economic aspect in Federal spending reduction, such as closing out of OEO and regional medical plans. This reduction points towards need for advanced County planning. A press conference dealt with some of the scientific data supporting fluoridation of the water supply. Coming up this April before the Big Island Press Club is a panel presentation-discussion of various aspects of medicine in Hawaii County.

DeWitt Hendee Smith, M.D.

HONOLULU COUNTY

HOUSE ACTION: Filed.

The year 1973 saw HCMS implementing changes recommended by AMA Study of the HMA-HCMS organizations. The Foundation for Medical Care had been transferred to HMA. Other committee activities have been amalgamated into HMA committees. On the HCMS level the peer review structure has been reorganized into a parent *PEER REVIEW* committee with the following as subcommittees: Medical Practice Committee, Medical Care Plans and Fees Committee, Medicare Claims Review Committee and Utilization Review Committee.

Guidelines for peer review have also been formulated.

With his transfer to Maui, Monsignor Charles Kekumanu ended a term of 19 continuous years as a member of the Medical Practice committee. In appreciation for his many years of service, the Board of Governors voted unanimously to elect Monsignor Kekumanu as an "Honorary Member" of HCMS and a gift and special award was made to him at our

March General Membership meeting. The Rabbi Julius Nodel of Temple Emmanuel has graciously agreed to serve in Mon-signor Kekumanu's place on the Medical Practice committee.

Since the amalgamation of the HMA-HCMS staffs in late November 1970, HMA and HCMS have been sharing the COMMON FUND expenses on a 50-50 basis. The Common Fund executive committee which consists of the presidents and treasurers of both organizations finally met early this year and after consideration of the time utilization studies and negotiation have agreed upon a 60% HMA - 40% HCMS sharing of the common fund expenses retroactive to January 1, 1973. This met with the approval of both the HMA Council and the HCMS Board of Governors.

The Program Committee in their annual report last year recommended some changes to improve attendance at the membership meetings. Some of these changes will be initiated, such as improved reminders for meetings, decrease in the number of meetings, etc.

With a balanced budget presented to the Board of Governors this year, we can look forward to a fruitful year of implementation of changes for the better.

William W.L. Dang, M.D.

MAUI COUNTY

HOUSE ACTION: Filed as follows:

The Maui County Medical Society met monthly (except in July) with close to 40 percent of the members in attendance.

Constitution and By-Laws changes were enacted in the early meetings. A change of the eligibility of members from the [Doctor of Medicine] to [Physician] was approved. A Committee on the Forms of Medical Practice, consisting of three members and a Committee on Peer Review, to include the three recent past presidents and the chairmen of the Utilization and Adjudication Committees were instituted.

The Diabetes Survey held in 1972, under the capable chairmanship of Dr. A.Y. Wong, reached 1,280 persons in the County.

In April, the Society was honored to host at their meeting Dr. Herbert Chinn, HMA President, Dr. Elisabeth Anderson and Mr. Tom Thorson. Dr. Chinn elucidated the activities of the Hawaii Medical Association to include the EMCRO project, Emergency Medical Care Services and the Blue Ribbon Committee composition.

A Resolution pertaining to the Membership of Qualified Osteopaths, as approved by the members of the Society, was proposed to the House of Delegates meeting in May which did not meet approval.

The inclusive hospital rate charges were proposed for Maui Memorial Hospital. There was opposition from members to the originally proposed rates since it included anesthesiologists' charges and a very high rate for obstetrical and nursery charges. A letter to Governor Burns prompted further study and a discussion with Department of Health representatives was held. A change in this rate to a more favorable one was then accepted.

The highlight of the year was the installation of Dr. William E. Iaconetti as President of the Hawaii Medical Association.

Dr. Thomas Chang reported on the Emergency Medical Service and on the institution of the Emergency Medical Technicians' training which had been started on Oahu.

The Health Maintenance Organization progress was reviewed. Some complaints were aired by some members, which were considered and resolved.

Five Maui students, who were sponsored by the Society and by the HMA attended the Careers' Day Program on October 18, 1972 in Honolulu.

Dr. and Mrs. John Withers arranged a most lavish Annual Christmas Dinner Dance held at the Maui Surf Hotel, which was well attended and thoroughly enjoyed by all.

Denis J. Fu, M.D.

KAUAI COUNTY

HOUSE ACTION: Filed.

In 1972, there were seven meetings of the Kauai County Medical Society. On February 24, Dr. Richardson and Mr. Thorson from HMA discussed the relationship of the county society to the AMA and state organization. HMA President Dr. Herbert Chinn and Mr. Thorson attended the meeting held on March 7 to review HMA activities and discuss future plans for the medical society and HMA. The Kauai County Peer Review Committee was appointed at the June 12 meeting and the composition of the Board of Censors was discussed. Dr. Thomas Chang discussed a grant for paramedical training and proposed plans for KCMS at the September 11 meeting. On October 2, two psychiatrists from the Mental Health Office discussed ways in which the members could benefit and help in the upgrading and future of the Mental Health Clinic. The slate of officers for 1973 was presented by the Nominating Committee. At the November 14 meeting the Regulatory Agency gave \$150 to KCMS for the purchase of medical texts for hospitals on the island. Highlights of the special Hawaii Medical Association Constitutional Convention were presented by Dr. Peter Kim and were circulated to the membership. The last meeting for the year was held on December 11. Dr. Robert Jackson of the Department of Health presented a "catch-up immunization program" for the County of Kauai. This meeting was scheduled to include the election of officers for 1973, however due to the lack of a quorum, no further business was conducted. An election ballot was circulated to the membership by mail and the following officers were elected: Dr. Robert Berry, President; Dr. William McLaughlin, Vice-President; and Dr. Laurence McCarthy, Secretary-Treasurer.

Katok A. Chuang, M.D.

REFERENCE COMMITTEE ON FINANCE

COMMUNITY RESEARCH BUREAU

HOUSE ACTION: Filed.

No formal meetings of the Community Research Bureau have been held during the past year. The President of the Bureau has met with the auditor and Mr. Tom Thorson. The Bureau operates as a fiscal agent for funds designated for charitable, scientific, literary, or educational purposes. At the present time the Bureau is acting as a fiscal agent for EMCRO and did act as a fiscal agent for funds received from the McNerny Foundation which were used to continue the HMA Hotline. It appears that the Community Research Bureau is definitely meeting the purpose for which it was formed.

B. Allen Richardson, M.D.

SITE, AD HOC

HOUSE ACTION: Adopted with recommendation that the committee continue another year.

The Site Committee did not meet formally during the year, but there were conversations relative to possible new locations for the combined Hawaii Medical Association, Honolulu County Medical Society and the Bureau of Economics. No progress was made whatsoever because of our inability to come up with any hard figures in dollars relative to investing in a new site. Until this problem is solved it is useless for the Site Committee to continue in its efforts to find any new locations.

O.D. Pinkerton, M.D.

WOMAN'S AUXILIARY

HOUSE ACTION: Adopted.

There has been no meeting of the Woman's Auxiliary Committee; however, the chairman has conferred with the President on several occasions regarding HMA policies as reflected by the Woman's Auxiliary activities.

R. Varian Sloan, M.D.

WOMAN'S AUXILIARY PRESIDENT

HOUSE ACTION: Filed with expression of gratitude for the unstinting dedication and many voluntary hours contributed by members of the Auxiliary for the benefit of the medical profession.

Emphasis on more effective political participation by the Auxiliary's over 800 members was given top priority this year. The annual winter workshop was devoted entirely to accomplishing this. Entitled "Legislative Learn-in", the program included a tour of the state capital, viewing a film on the legislative process, briefing by legislative aides, observing the legislators in session and a luncheon during which State Representative Pat Saiki (a doctor's wife) spoke, encouraging doctor's wives to become more politically active. In addition Mrs. Jerome Tucker, State Auxiliary Legislative Chairman explained the importance of HAMPAC membership. The meeting was well attended and each neighbor island auxiliary sent at least two representatives.

AMA-ERF contributions grow with each passing year. Hawaii was given a merit award at the AMA Auxiliary Convention in June 1972 for raising a total of \$11.58 per capita for AMA-ERF. Each county contributes in its own way. Some send in direct contributions while others have fund raisers. Maui is planning a fashion show and a white elephant sale. Honolulu County anticipates a record breaking attendance when it sets out to prove that "Red, White and Blue is beautiful"—and profitable. It is expected that the boutique, auction, dinner and show to be held on April 7, 1973, will raise at least \$6,000 for AMA-ERF. Mrs. Edward Kagihara, State Chairman of AMA-ERF, has worked closely with Honolulu County not only for this event but also their annual Xmas luncheon and boutique. Her committee continues to work on a cookbook which, when published, will be sold by the Auxiliary to benefit AMA-ERF.

Auxiliary members played a major role in the organization and planning of "Health Careers Day" held on October 18, 1972. More than thirty Auxiliary members, under the direction of Mrs. Philip McNamee, Health Careers Chairman, visited all of the high schools to publicize the event and were on hand at the event to insure that the program ran smoothly. Approximately 1500 students from Oahu and the neighbor islands attended the program—viewing exhibits, films and going on field trips.

Other activity in the area of health careers included a health manpower survey of the state done at the request of the A.M.A. It was also decided to purchase, in cooperation with the Honolulu County Auxiliary, new directories on health careers and financial assistance to be distributed to all high schools in the state.

The Health Education and Volunteer Services Committees worked closely together this year and found that programs within the component auxiliaries were varied and productive. The Maui Auxiliary members continue their work with the Adult Retarded Division and, in addition, aided the March of Dimes as well as the island wide "disaster drill". The Hawaii County Auxiliary gives their support to the Hilo Special Education Center and the Blood Bank. Kauai's members work on an individual basis in the community. Honolulu County members volunteered their time for "Diabetes Detection Week", the American Cancer Society's pap smear survey and

educational exhibits. Over 85 community people benefited from a course given on "rescue breathing". Their annual "Guest Day" focused on youth and the problems of the adolescent. This annual event once again drew a large audience representing many service-oriented organizations in the community.

All of the component auxiliaries participated in a highly effective "Poison Prevention Week" held in March. The Department of Health prepared a booklet entitled "Poison Isn't Kid Stuff" which Honolulu County and the State Auxiliary helped to finance. This was distributed along with poison charts, printed by Meadow Gold Dairies, to kindergarten and first graders all over the state by the Auxiliaries. Newspaper, radio and TV coverage was also obtained.

The In Memoriam Committee under the leadership of Mrs. Edward Emura completed ten biographies of deceased doctors and revised sixteen others. They also added eleven photographs to the files.

The International Health Committee has once again provided many countries with almost unbelievable amounts of needed medical equipment. With all counties cooperating, it is estimated that about 21,000 pounds of medical supplies have been shipped out in this past year. X-ray units, syringes, medical books, clothing, a cautery unit and almost any other kind of medical equipment one could imagine has been shipped out with the cooperation of the military as well as domestic airlines and shipping companies. Mrs. William Moore, Honolulu County Auxiliary International Health Chairman deserves much credit for these accomplishments. In March she was most instrumental in obtaining three truck loads of supplies to be loaded on the Indonesian ship, "Sumadikun". Mrs. Harold Lawson, State Chairman, has kept in touch with the various hospitals in foreign countries, especially in the Orient, in order to be aware of their needs.

Another aspect of International Health is the "adoption" of children in foreign countries. Maui County sponsors a 13 year old boy from St. Christopher's Home in Hong Kong. They contribute \$10 a month to support him.

WA, SAMA liaison, Mrs. David Andrew, organized a brunch sponsored by the State Auxiliary for all resident, intern and medical student wives in September. This committee, working with Honolulu County's liaison has tried throughout the year to keep the WA, SAMA members apprised of current Auxiliary Activities and make them feel welcome in our community. An updated "Kokua Booklet" is being prepared to distribute to all new resident, intern and medical student families arriving in our community.

"Rx For Doctors' Wives", co-edited by Mrs. Clifford Chang and Mrs. Charles Yamashiro, has been published twice this year with the third issue coming out in May. This timely newsletter is distributed to all auxiliary members in the state and provides a most worthwhile way to keep members in touch with the current news of all the component auxiliaries.

In May, Mrs. Robert Beckley, president of the A.M.A. Auxiliary will attend the State Annual Meeting. The meeting will include a tour of the Alice Cooke Spalding House followed by a lunch at the home of Mrs. Walton Shim.

The preceding report reflects the major accomplishments of the Hawaii State Medical Auxiliary and its component auxiliaries. What it should also reflect is the *many* Auxiliary members who work so hard to make our goals and objectives come to fruition. It is to these dedicated, hard working members and most especially the officers, board members and committee members that we are most grateful.

Mrs. George F. Schnack

COMMISSION ON LEGISLATION AND LEGISLATIVE COMMITTEE

HOUSE ACTION: Adopted with expression of gratitude to the chairman of the committee, members of the Association who participated in the legislative process, and the staff.

The 1973 Session of the Seventh State Legislature will long be remembered by the members of the Legislative Committee and members of the various committees of the Association recommending legislative proposals as being one of the busiest and most successful of sessions for the Association.

The details of the work that went into the preparation of the bills enumerated later in this report will undoubtedly be submitted by the committees involved. We are grateful for the time and effort spent by all the individuals concerned. We would be remiss, however, in not mentioning the efficient and very impressive effort of our legislative counsel, Mr. Ben Kaito, in advocating our causes at the State Legislature. We are convinced that much of the favorable actions to our proposals would have been difficult or impossible to achieve without his capable assistance. We acknowledge Mr. Kaito's superior abilities and time spent beyond the call of duty for the good of the Association.

The task of keeping the Legislative committee apprised of the numerous bills that the Association had to be kept informed of during this session of the Legislature was very efficiently and capably carried out by our legislative secretary, Mrs. Becky Kendro. Her intelligent reporting of the rapidly changing scene at the State Legislature was instrumental in keeping key members of the staff and the Association apprised so that adverse actions to the stands of the Association were kept to a minimum. In addition she carried out her assigned task of assisting in the preparation of necessary testimony for hearings and presentation to key legislators with such zeal and devotion that the needs of her own family have been less than adequate on numerous occasions.

Although it is gratifying to see an increasing number of members of the Association participating in the legislative process, we would like to point out that bills of vital interest to the Association do not pass on merit alone. We strongly recommend that members of the Association actively participate in the political party of their choice and actively support candidates of their choice in political campaigns. Events taking place in our National and State legislatures make it crystal clear that physicians cannot afford to remain aloof from the gut level of the political process. Other groups such as the optometrists and chiropractors are aware of the importance of such involvement. The strength of their voices in the legislature attests to this opinion.

The bills enumerated below together with their status were actively supported by the Association. In addition to these bills many members of the Association testified effectively on many other bills of equal importance to the medical profession.

- HB 880

Statute of Limitations bill. Provides for a firm date of termination of liability (Malpractice cases) at the end of a maximum period of six years from date of injury or at the end of two years from date of discovery, whichever occurs first. *PASSED BOTH HOUSES, NOW AWAITS GOVERNOR'S SIGNATURE.*
- SB 622

Amends Act X and restores physician's right to dispense controlled substances. *PASSED BOTH HOUSES, NOW AWAITS GOVERNOR'S SIGNATURE.*
- SB 1043

Relating to Workmen's Compensation. Will provide an automatic mechanism by which workmen's comp fees may be increased or decreased according to the fluctuation in the Consumer Price Index. *PASSED BOTH HOUSES, NOW AWAITS GOVERNOR'S SIGNATURE.*
- SB 883

Amends Medical Practice Act to provide a legal framework within which the physician's assistant and physician-support personnel can function within the health care system. Specifies that services shall be performed under the supervision, control, and full professional and personal responsibility of the employing physician, such direction

and control not in every case to require the personal presence of the supervising and controlling physician. Calls for promulgation of rules and regulations by the Board of Medical Examiners regarding standards of medical education and training, such standards to be equal but not limited by existing national educational and training standards. *PASSED BOTH HOUSES, NOW AWAITS GOVERNOR'S SIGNATURE.*

- SB 87

Will allow use of name of persons or physicians concerned with certain cancer research studies when such studies have been approved by the Cancer Commission of the HMA. Will facilitate the collection and analysis of information contained in the Hawaii Tumor Registry. *PASSED BOTH HOUSES, NOW AWAITS GOVERNOR'S SIGNATURE.*
- HB 297

Allows minors between 14 years and age of majority to consent to medical care and services for venereal disease, pregnancy, family planning, and substance abuse. Persons rendering service need not inform the spouse, parents, guardian, etc. The minor who consents to services assumes financial responsibility except in cases where, in the physician's judgment, the risk to the minor's life or health is of such a nature that medical treatment should be given without delay (in which case parents, agencies, etc. are responsible even without consent). *PASSED HOUSE. Presently in Senate Health Committee chaired by Senator Mason Altieri.*

If the next session of the Legislature involves as many bills of concern to the medical profession as during this past session, the need to retain a legislative counsel from within the party in power is self evident.

<i>Budget Request:</i>	
Legislative Counsel	\$6,500.00
Today's Health	150.00
Miscellaneous	100.00
Total	\$6,750.00

- Recommendations:*
- (1) That the budget of the Legislative Committee be approved as submitted.

(2) That the efficient services of the legislative secretary, Mrs. Becky Kendro, be acknowledged and that she continue to serve in this capacity.

(3) That the invaluable services of Mr. Ben Kaito be acknowledged and that his contract be extended for another year; provided that Mr. Kaito or a suitable substitute chooses to serve and that the Council of the Association approve the necessity of retaining a legislative counsel.

George Goto, M.D.

LEGISLATIVE COUNSEL

HOUSE ACTION: Adopted.

Your legislative counsel's activity for the year 1973 consisted in the main of two parts:

(a) Counseling the Legislative Committee's actions in screening the various bills numbering many hundreds introduced in the State Legislature; and

(b) Furthering the passage of certain bills relating to the medical profession which were introduced by the Legislative Committee.

In the first part, commencing with the initial meeting of the committee on January 9, 1973, your counsel attended the many meetings of the committee; advised the committee on the merits of bills on the agenda; and aided in the drafting or amendment of certain bills which are the subject of the discussion to follow.

In the second part, your legislative counsel had the respon-

sibility of following the passage through the Legislature of several bills relating to the following subjects:

(1) Statute of Limitations for suits or actions based on medical malpractice. This matter was the subject matter of your counsel's report in 1972. Companion bills for this purpose were introduced in both houses of the Legislature—Senate Bill 406 and House Bill 880.

(2) Amendment to Act 10, Session Laws 1972, the Controlled Substances Act. The amendment corrects a glaring omission in Act 10 to permit "practitioners" (defined in the Act to cover physicians, veterinarians, dentists, etc.) to dispense drugs coming within the purview of the Controlled Substances Act to the ultimate users, i.e., the patients, together with requirements for the keeping of certain records. Bills for this purpose were introduced in the form of House Bill 1219 and Senate Bill 622, Senate Draft 1 (as an amendment to Senate Bill 622, a related bill which had already been introduced in the Senate).

It might be noted here that another bill, House Bill 42, which prohibited the ownership of pharmacies by doctors and which also prohibited the dispensing of all drugs by physicians, was successfully opposed by the Medical Association.

(3) Amendment to the Medical Practice Act to permit the use of physician's assistants or support personnel under the supervision and control of physicians. In order to permit the utilization of the personnel trained for the new Emergency Mobile Intensive Care Units here in Hawaii, as well as to authorize the use of skills being developed under the new and diversified paramedical programs, Senate Bill 883 and House Bill 1182 were introduced.

Your legislative counsel is pleased to report that we were successful in having the Legislature enact House Bill 880 for the limitation of actions based on medical malpractice; Senate Bill 622, Senate Draft 1, amending the Control Substances Act; and the Senate Bill 883, Senate Draft 2, amending the Medical Practice act.

Your legislative counsel feels that this was a banner year for the Hawaii Medical Association for successful action on legislation relating to the medical profession. This reflects the conscientious and hard work of the members of the Legislative Committee, the chairman of the various subcommittees, its chairman, Dr. Geroge Goto, and its secretary, Mrs. Becky Kendro, as well as the tremendous cooperation received from the Senate Legislature. In anticipation of the needs of the Hawaii Medical Association for the similar legislative work for the future, I would like to urge the wholehearted cooperation of the members of the Hawaii Medical Association in supporting the work of its Legislative Committee.

It has been a pleasure working for you.

Ben F. Kaito

FEE SURVEY

HOUSE ACTION: Adopted as follows:

During the past year the Fee Survey Committee has met many times to discuss changes and additions to the 1970 RVS. New procedures have been added and relativities have been changed in some instances. Physicians and Insurance Companies are making better use of the new RVS although there are still numerous problems in misinterpretations. The Department of Social Services has finally adopted the new RVS. However, their conversion factor is still unrealistically low. In the next few months an addendum to the 1970 RVS will be ready for mailing to all physicians and Insurance Companies.

Maurice W. Nicholson, M.D.

TV-RADIO

HOUSE ACTION: Adopted as follows with deletion of budget request.

The Committee has continued to produce its weekly Sunday program "HMA HOTLINE" on Station KGMB. Station KGMB has been most cooperative and generous. The viewing audience is estimated at 12,000 persons.

When budgeted funds from HMA ran out in July 1972, funds were received from the McNerny Foundation via the Community Research Bureau which paid for production costs until October 1972. When no further funds were able to be solicited, Station KGMB assumed production costs for the rest of 1972. Appropriated funds should enable the program to continue thru June 1973.

Efforts to solicit funds thru other trusts of foundations were not successful. Efforts to solicit funds thru an advertising agency were also unsuccessful.

The Filipino Speakers Bureau continued to be active under the leadership of Dr. Q.L. Uy, assisting television station KIKU in its medical programs.

The Japanese Speakers Bureau continued to be active under the leadership of Dr. K. Goshi, assisting radio station KOHO and KIKU-TV station in its medical programs.

The costs of producing "HMA HOTLINE" have been cut to the ultimate minimum, namely production cost and the moderators salary. This has entailed the continued presence of committee members to act as question central at each program.

The cost/benefits of "HMA HOTLINE" have to be re-evaluated in terms of community benefits, HMA benefits, and individual physician benefits. If no funds are acceptable from interested business source, if the quality viewing audience of KGMB is desired, perhaps funds can be solicited as donations from individual physicians, clinics and corporations to the tax-exempt Community Research Bureau of the HMA.

Recommendations:

- (1) That HMA Hotline continue if funds are available from other sources.
- (2) Funds be solicited from HMA members as donations to the Community Research Bureau, if no funds are available directly from HMA.
- (3) HMA recognize and thank Mr. Cecil Heftel of KGMB for his interest and enthusiasm in producing a community affairs program of medical interest.
- (4) That the TV-Radio Committee continue to investigate other sources of funding and other television stations where HMA Hotline might be continued.

Theodore K.L. Tseu, M.D.

RESOLUTION NO. 3—HMA HOTLINE—Introduced by HMA TV-Radio Committee

HOUSE ACTION: Adopted as follows:

RESOLVED, That the Hawaii Medical Association strongly urge, by all means available, that all its members voluntarily contribute \$25.00 or more to the Community Research Bureau, the tax exempt foundation of the HMA, as a tax-deductible donation in order to finance HMA HOTLINE or a similar public education program approved by the HMA Council.

TREASURER

HOUSE ACTION: Adopted as follows:

Until recently income to HMA was from the dues paid by its members. Sometimes it was augmented by interest earned on unexpended dues and/or accumulated surpluses. More recently, the addition of projects have provided some additional income through the indirect costs attendant thereto.

To count on special projects to provide a steady source of revenue is risky.

The HMA, of necessity, has had to budget increasing amounts of money to meet the never-ending challenges which it faces. It is realistic to expect that this trend will continue over the next many years to come if the HMA is to fulfill its obligation not only to its own members but to the community of which it is a part.

Your Treasurer is most concerned about the future funding of these necessary and increasingly costly obligations.

There are really only a few potential sources of revenue:

(1) *Dues*: The present dues structure provides \$140.00 per member per year to the HMA. To try to continue operating HMA at this level, even though the total membership may be expected to increase, would mean negative growth.

(2) *Investments*: Another source of income might be through investments. This is not an unrealistic approach and should be carefully considered. The possible sources of capital for an investment program could be:

(a) A *dues* structure which would be designed to cover current costs plus a significant amount of funds for a realistic and aggressive investment program. This could be through a portfolio of securities, real estate, or a combination of these. I would expect that initially income derived would be small, but as the portfolio increased in size, there would be proportionate rewards. My impression is that such a portfolio should be designed both for growth as well as income.

(b) Money initially obtained for the Physicians Benevolent Fund could, under proper circumstances, become a part of the corpus of the investment portfolio.

SUMMARY: The present income structure of HMA will, in due time, provide a lower percentage of total dollar needs for HMA operation. Therefore, steps should be undertaken now to anticipate future need over the next five to ten years through the development of a reasonable aggressive income program to meet these increased costs. It is the feeling of the undersigned that raising dues annually to meet increased costs could, in the long run, be a less satisfactory method than increasing dues to not only meet costs but also provide for an investment program for HMA.

Grover H. Batten, M.D.

BUREAU OF RESEARCH AND PLANNING

HOUSE ACTION: Adopted.

The Bureau of Research and Planning held a meeting on October 30, 1972. At that time a letter from President Iaconetti was read to the committee. The letter requested that the Bureau clear all projects it undertakes with the HMA officers. The Chairman noted that he had circulated two papers to the committee relating to the matter of the National Health Insurance and the total delivery system of health care. These papers were circulated for informational purposes and for study by the members of the committee.

The function of the Bureau was discussed at length and the following definition was developed: "The Bureau of Research and Planning shall consist of not less than ten members serving for three-year terms, four being elected each year by the Council from nominees presented by the President of the Association. The chairman shall be appointed by the President with the approval of the Council. It shall be directly responsible to the Council and the President. It shall initiate study projects and consider such matters as are referred to it by the President and the Council. After due deliberation and the holding of hearings on a matter, it shall make recommendations to the Council. The Bureau should function as a forward-looking committee with broad viewpoint, to help guide the HMA in its future course and objectives."

The committee discussed possibilities for projects during the year. One suggestion was a study on methods of attracting younger doctors to join the HMA. It was recommended that a statewide recruitment plan be developed. The committee also agreed to follow-up on the recommendation of last year's committee "to review the relationship of the Hawaii Medical Library to the HMA, its component County Societies, the specialist societies, the University of Hawaii and the community."

The research was done in both areas and it was discovered that the library situation, from the short-term view, has been adequately studied but that the long-term study must be undertaken, which requires much research and cooperative endeavors, taking into consideration the uncertainty of the medical school's future.

Since PSRO is to be one of the major areas of concern of organized medicine within the next few years, it is suggested that the Quality Assurance of Medical Care, a monograph from HEW, be the next big undertaking of the Bureau of Research and Planning because in this monograph are indications as to what is the Quality Assurance of Medical Care standards and evaluation. It is presented with the cooperation of HSMHA of HEW. Unfortunately, the number of copies that are available at this time is very limited but the analysis done at the HMA level will assist our able officers and the council to become more knowledgeable and informed.

Since PSRO is going to be the concern of the present Medicaid, Medicare and most likely of the National Health Insurance, it will help us by studying in this area. Adequate analysis and synthesis of this area with realistic assistance from medical economists, medical insurance representatives and the leadership of the Hawaii Medical Association will go a long way in launching HMA's PSRO program.

Masato M. Hasegawa, M.D.

EMCRO

HOUSE ACTION: Adopted.

The Hawaii EMCRO project continued during the past year with the following objectives: (1) to provide consultation and technical staff assistance for continuous hospital based medical care review; (2) to develop the procedural and technical methodology for effective review of the quality of ambulatory care in a variety of settings; (3) to provide a continuous system of interval feedback on quality of ambulatory care and hospital based patient care, thereby stressing the educational aspect of the Hawaii EMCRO project. These expressed purposes were continued with eight member hospitals continuing in the project and with 369 participating physicians continuing in the ambulatory care review portion. Seven extended care facilities were recruited for the ECF portion of the project and four hospital nursing services for the nursing care review component.

The performance data of the hospital diagnoses were received from the Commission on Professional and Hospital Activities and distributed. Joint Hospital Education Audit Committee meetings were held at each of the hospitals with the physician and medical records department representatives. Four of the hospitals have requested seminars for review of the data prior to the termination of the project and these have been planned. Ambulatory care review data has been fed back to participating physicians by registered mail, comparing the physicians performance with his peers for his individual evaluation of his performance. Extended care facility criteria and nursing care review criteria have been established. The nursing care review project sponsorship has been turned over to the Hawaii Nurses Association.

In mid-December, 1972, notification of RMP Hawaii of budget tightening nationally necessitated that a project grant proposal be resubmitted to the National Center for Health Services Research and Development in hopes of obtaining extended funding of the Hawaii EMCRO project. The proposal was submitted January 28, 1973 with the Hawaii Medical Association being the sole sponsor and grantee of the Hawaii EMCRO project-Phase II. No response was obtained in writing from the National Center until mid-April, at which time we were informed of the disapproval of our application. The reasons listed for the disapproval were as follows: (1) the National Center's concern that the Executive Committee would not be an autonomous executive committee and that staffing of the project was uncertain because the present project director and a major portion of his staff would not continue with the Phase II EMCRO project under HMA control, (2) economic self-sufficiency of the project was not well defined, and (3) that the change of direction toward outcome methodology was vague. These objections were raised in spite of the statement by the Hawaii Medical Association in the project proposal that the

Executive Committee would in fact be autonomous, that nationally recognized experts in the field have expressed interest in directing the second phase of Hawaii's EMCRO project. Representation on the Executive Committee by the Hawaii Hospital Association, insurance carriers, and the Department of Social Services was to be included in an effort to receive counsel from these groups toward developing an economically self-sufficient project in hopes that each of these representatives could help direct the marketing of the data obtained to provide economic self-sufficiency. Also expressed in the project proposal was the definite interest toward changing direction toward outcome evaluation.

It is my personal opinion as chairman of the Executive Committee that the reason the project proposal was disapproved was the difference of opinion that existed between the project director and staff and the Hawaii Medical Association Council. This difference of opinion resulted in the project director and the major portion of his staff expressing no interest in continuing in this capacity with Phase II primarily because of the alleged stifling control of the project by the Hawaii Medical Association Council. This attitude, in spite of the development of an autonomous Executive Committee in the project proposal was transmitted to the National Center and resulted in disapproval of the grant proposal.

I feel that it is extremely unfortunate that EMCRO Hawaii Phase II will not be funded, for the EMCRO project in Hawaii was unique in that its direction was educational rather than claims and utilization review and that more than one site visitor had expressed the fact that EMCRO Hawaii was possibly the best EMCRO project in the country. It is my hope that the methodology developed during the two years that the project was functioning will be continued in some form and directed toward physician education for the betterment of the practicing clinician and his patient.

William E. Iaconetti, M.D.

RESOLUTION NO. 1—Introduced by the HMA Finance Committee

HOUSE ACTION: Adopted as follows:

RESOLVED, That the House of Delegates refer the final determination of the 1974 budget to the Council who shall convene for this purpose during the last two weeks of October or first two weeks in November 1973, and be it further

RESOLVED, That the Council also be empowered to establish the dues for 1974 not to exceed \$205 per member and that the House of Delegates mandates the Council to reduce the budget deficit as much as possible and produce a dues increase which is just enough to balance the budget.

FINANCE

HOUSE ACTION: Adopted as follows:

The Finance Committee met frequently throughout the year to review the monthly financial statements for 1972, restrain expenses, formulate financial policies for the Association, study investment programs, reevaluate the budget for 1973 as well as determine the budget needs for the Association in 1974.

The breakdown of income and expense at the end of this report (*Exhibit A*) contains: (1) Actual income and expenses for fiscal year 1972; (2) the 1973 budget adopted by the House of Delegates in May 1972; and (3) a proposed budget for 1974.

1972 BUDGET: In May 1971, the House of Delegates adopted a budget that was out of balance by \$19,762.00. Through the cooperation of various committees and careful inspection of expenses we were able to keep the deficit for 1972 at \$13,350.16. *Exhibit B* compares the amount budgeted with actual expenses for a five-year period. It should also be noted that the Association has been in deficit spending for the past three years—1970, 1971, and 1972 (*Exhibit C*). The surplus funds which had been accumulated over the years were

entirely depleted during these years of deficit spending.

Income generated during 1972 was higher than budgeted primarily due to an increase in membership as well as indirect costs from the EMCRO grant.

Although several budget categories were well under the estimated budget, several categories were considerably over the amount budgeted. Council expense was higher due to an increase in the number of meetings (this item also includes per diem expenses for three neighbor island councillors as well as the expenses of the President who was in the HMA offices at least one day a week). The salary item increase was due to the addition of another person in the accounting department, necessitated by additional project grants. The grant for the Assistant to the President was included under Special Authorized Expenses. Expenses for legal counsel, insurance, printing supplies, telephone and telegram were higher than anticipated although considerable savings were realized for auditing, postage, travel, committees and the Roster.

1973 BUDGET: The 1973 budget adopted by the 1972 House of Delegates showed \$245,600 budgeted for total income and \$247,724 in expenses, or a deficit of \$2,124 for the year. This deficit was increased to \$21,116.00, however, when the HMA Council and Honolulu County Medical Society Board of Governors approved a reallocation of Common Fund cost sharing. Since its inception of 1971, expenses of the Common Fund have been shared on a 50-50 basis between HMA and HCMS. In March 1973, the executive committee of the Common Fund evaluated the operation and reviewed several time utilization studies. The committee concluded that the costs of operating the Common Fund should be reallocated on a 60% (HMA)—40% (HCMS) basis effective January 1, 1973 for a twelve-month period, to be reviewed again in August 1973. They also agreed to share the auto expenses for the executive director which were formerly covered by the BME.

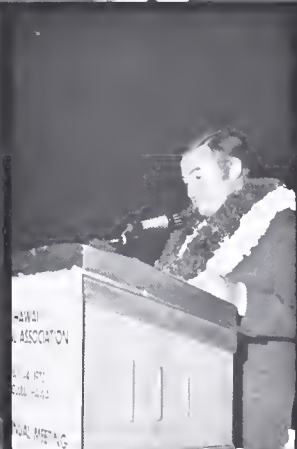
Exhibit A shows this adjustment in the total expenses of the Common Fund for 1973 and the resulting total deficit of \$21,116.00. The Finance Committee thus felt compelled to recommend a membership assessment of \$27 to cover the budget deficit. The Council concurred with this recommendation.

1974 BUDGET: Prior to the adoption of the calendar year as the fiscal year for the Association, budget preparations began shortly before the annual meeting held each spring for a budget which would become effective on July 1. With the change to the calendar fiscal year, we have been faced with preparation of a budget which will not become effective for nearly a year hence. The Finance Committee has carefully scrutinized the proposed budget for 1974. There are many uncertainties at this time. As illustrated in Exhibit A, the deficit for the year totals \$50,832.00. In order to cover this deficit a dues increase in the amount of \$65.00 would be necessary. Due to the uncertainties involved (primarily grant terminations and renewals), we feel it would be premature for this House of Delegates to adopt a deficit budget of this proportion and establish a dues increase at the present time. As outlined in Resolution No. 1, the Finance Committee believes that the final determination of the 1974 budget should be referred to the Council who would convene for this purpose during the last two weeks of October or first two weeks in November. We also believe the Council must be empowered to determine the dues for 1974.

Any increase in costs is generally looked upon with disfavor. It must be pointed out, however, that the HMA's cost of doing business has paralleled the inflationary factors of our society. In addition, while the cost of living has increased at an average of 6.5 percent per year since 1968, our last dues increase was six years ago. (See Exhibits D and E)

INVESTMENT PROGRAM: The Finance Committee has been asked for recommendations regarding the establishment of an investment program. The Finance Committee recommends that action be deferred temporarily until it is economically feasible to proceed with such a program. However, it is our belief that in order to initiate steps toward that goal, it is now appropriate to utilize the monies in the Physician's Benevolent Fund as the nucleus of an investment program. We





have been advised that the PBF may be put to that purpose immediately. The Finance Committee feels those living donors should be give a voice in this decision and, accordingly, our legal counsel has drafted a letter for circulation to PBF contributors. In essence, the letter requests permission to use PBF monies as a special investment account and/or to assist in the establishment of a building fund. (See Exhibit F)

HOUSING PROGRAM: The November 1972 House of Delegates called for an HMA Housing Program to be completed by this session of the House of Delegates. At the HMA Council meeting on December 15, 1972, the Site Committee reported it was impossible to proceed with site plans until the amount of monies available for investment purposes was known. The Finance Committee is regretfully unable to recommend any funds other than PBF which might be employed for site or investment purposes at this time.

SUMMARY: Our Association has grown rapidly in a relatively short period of time. Our budget for 1973 has nearly doubled that of five years ago. We have only recently experienced the workings of Federal grants and the management of these funds has been considerably detailed and time consuming.

We must continue to seek sources of income to rebuild our reserves and look for investments which will help provide for our Association in future years. We must utilize our staff and present resources as efficiently as possible. Therefore, your Finance Committee recommends an immediate step in that direction as presented in Resolution No. 2.

Your Finance Committee has labored many long hours to solve the financial problems facing our Association and sincerely believes that the recommendations listed below will enable the Association to attain a more secure financial foundation on which to continue building. We seek the support of each HMA member.

Grover H. Batten, M.D.

Recommendations:

- (1) That a membership assessment of \$27 be levied to cover the anticipated budget deficit for 1973, to be collectable as of July 1, 1973, and delinquent after October 1, 1973.
- (2) That Special membership dues be increased from the present one-third to one-half of the dues paid by active members for 1974 and thereafter.
- (3) That the Council be authorized to approve unbudgeted items not to exceed a total of \$5,000 for 1974.
- (4) That a letter be sent to Physician's Benevolent Fund contributors regarding the use of PBF monies as a nucleus for an investment program.
- (5) That proposed changes in the percentage allocation of the HMA-HCMS Common Fund be conducted in the same manner but with definite considerations to avoid retroactive changes in the budget.

Exhibit D — DUES STRUCTURE COMPARED WITH CONSUMER PRICE INDEX

The Consumer Price Index (CPI) for all services has risen at an average of 6.5% per year since 1968¹, the last year HMA dues were increased. Based on this average rise, the dues structure for the HMA would have looked like this:

1968	1969	1970	1971	1972	1973	1974
\$140	\$149	\$158	\$169	\$180	\$192	\$204

If one takes the present dues structure of \$140 per year, the deficit HMA has faced each year in dues per member is \$0 in 1968; \$9 in 1969; \$18 in 1970; \$29 in 1971; \$40 in 1972; and \$52 in 1973, for a total of \$148 per member in the last six years.

Because of this level dues structure over a long period of time, the HMA has utilized its reserves for its operation. The HMA Council is recommending an assessment of only \$27 per member in which to cover the deficit incurred during the past six years as opposed to the hypothetical \$148 per member lag, and is also recommending that the dues be set for the HMA at \$205 for 1974 which appears to be in accord with the projected figure

for dues based on the average rise in the CPI for all services. Note that in the same period of the CPI, these figures emerge¹:

Total Medical Care, average rise:	6.5%
Medical Care Services, average rise:	7.5%
Physicians Fees, average rise:	6.7%
Hospital Daily Service Charges, aver. rise:	12.6%
Hospital Operating Rm. Charges, aver. rise:	11.8%

¹From the AMA's *Reference Data on Socioeconomic Issues of Health*, 1972 Edition

Exhibit F—LETTER TO PHYSICIAN'S BENEVOLENT FUND CONTRIBUTORS

Dear Doctor:

The Physician's Benevolent Fund has been the subject of continued discussions over the past several years by the HMA Council and House of Delegates. This Fund has never reached the \$50,000 goal that was set as a condition precedent to distributions being made. It is the opinion of your officers and the Council that this Fund should cease to be segregated and should be used for Hawaii Medical Association purposes, specifically as a special investment account or to assist in the establishment of a building fund. The relationship between you, one of the contributors to this fund and the Fund and Hawaii Medical Association is not crystal clear in terms of legal rights and responsibilities, but it seems appropriate to request your opinion with reference to the distribution or disposition of this Fund.

If we do not hear from you by _____, 1973 it will be assumed that you have no objection to the Council making such decisions as they feel appropriate and thereafter they will proceed with planning with reference to this heretofore separately accounted sum of money to devote it to a use that will be of general benefit to the Association.

Very truly yours,

RESOLUTION NO. 2—HMA ANNUAL MEETING—Introduced by the HMA Finance Committee

HOUSE ACTION: Adopted as follows with referral to By-laws Committee:

RESOLVED, That the annual meeting date of HMA be shifted from May until October or November commencing in 1974 and continuing thereafter.

REFERENCE COMMITTEE ON PEER REVIEW AND MEDICAL SERVICES COMMUNITY HEALTH CARE

HOUSE ACTION: Adopted.

This committee has held ten meetings during the past year. We have tried to keep up with and whenever possible help with any proposals relative to community health care. The committee has followed with interest the following community health activities:

- (1) The Windward Comprehensive Health Planning efforts being carried on by the Health and Community Services Council under contract with Comprehensive Health Planning.
- (2) The Kaiser—OEO grant. The committee and HMA Council felt that certain areas in the proposal and grant were made without proper community input.
- (3) Waianae Coast Comprehensive Health Center, Our position has been that approval was withheld because we could see no way that this project in any way could be self-supporting. Very large sums of money have been invested in this project and we will continue to follow the methods of continued funding.
- (4) We have encouraged the Kokua Kalihi Valley project which was presented to us by Dr. Judd.
- (5) We have heard proposals of the Kahaluu Medical Clinic and at the present time a member of the committee, Dr. Claude V. Caver, is serving on the Technical Advisory Committee of this project.

Exhibit A — STATEMENT OF INCOME AND EXPENSES

	ACTUAL FOR 1972	BUDGET FOR 1973	BUDGET FOR 1974
<i>INCOME</i>			
Membership Dues	107,295.00	108,000.00	110,000.00
Journal	28,442.00	35,000.00	35,000.00
Annual Meeting	23,733.00	28,000.00	28,000.00
Annual Roster	5,395.00	7,500.00	7,500.00
Indirect Cost Reimb. (EMS & Tumor)		44,000.00	
Indirect Cost Reimb. (EMCRO)	30,148.00	15,000.00	
Interest Earned	1,813.00	2,000.00	2,000.00
Miscellaneous	5,136.00	2,500.00	2,500.00
Common Fund Revenues		2,500.00	2,500.00
Health Careers Council	1,012.00	1,160.00	1,100.00
Total Income	<u>202,974.00</u>	<u>245,600.00</u>	<u>188,600.00</u>
<i>EXPENSES</i>			
Auditing	1,466.00	4,374.00	1,800.00
Council Expenses	5,002.00	5,000.00	5,000.00
Donation	100.00	100.00	100.00
Dues & Subscriptions	761.00	800.00	800.00
HAMPAC	—0—	200.00	200.00
Library Contribution		100.00	100.00
Insurance	355.00	500.00	500.00
Legal Counsel		—0—	—0—
Meeting Expenses	5,214.00	5,200.00	5,200.00
Miscellaneous	496.00	300.00	300.00
Postage	2,004.00	2,500.00	2,500.00
President's Assistant	9,100.00	12,000.00	12,000.00
President's Contingency Fund	135.00	700.00	700.00
Retirement Plan	5,441.00		
Stationery, Printing & Supplies	331.00	500.00	500.00
Special Authorized Expenses	1,801.00	1,000.00	1,000.00
Taxes—Payroll	1,307.00	1,500.00	1,500.00
Telephone & Telegram	4,889.00	4,800.00	4,800.00
Travel	4,181.00	5,000.00	5,000.00
Woman's Auxiliary	6,084.00	6,500.00	6,500.00
Committee Expenses	17,495.00	38,690.00	9,000.00
Journal Expenses	33,157.00	35,000.00	35,000.00
Annual Meeting Expenses	22,206.00	25,000.00	25,000.00
Roster Expenses	9,605.00	7,500.00	7,500.00
Furniture & Fixtures—Depreciation	1,058.00	1,000.00	1,000.00
Health Careers Council	1,168.00	1,160.00	1,100.00
Total Expenses—General	<u>133,356.00</u>	<u>159,424.00</u>	<u>127,100.00</u>
<i>COMMON FUND EXPENSES</i>			
Salaries	59,795.00	60,000.00	64,000.00
Auditing			
Auto Allowance	609.00	1,710.00	1,710.00
Computer Reports	236.00	250.00	250.00
Dues & Subscriptions	169.00	200.00	400.00
Insurance & Bond	2,058.00	2,000.00	2,000.00
Lease Rent on Office Equipment	1,434.00	1,400.00	1,400.00
Legal & Professional	1,560.00	1,550.00	1,550.00
Meeting Expenses	29.00		
Office Supplies	4,583.00	4,500.00	4,500.00
Postage	30.00		
Rent	7,560.00	7,550.00	7,550.00
Repairs & Maintenance	487.00	450.00	450.00
Retirement Contribution & Expenses	584.00	5,800.00	5,800.00
Telephone & Telegram	284.00	250.00	250.00
Taxes (FICA, U/C, FUTA)	3,012.00	3,000.00	3,000.00
Travel	538.00	750.00	750.00
Total Common Fund Exp. (before Adj.)		<u>89,410.00</u>	<u>93,610.00</u>
Adjustment—60% Allocation in C/F Expenses		<u>17,882.00</u>	<u>18,722.00</u>
Total Common Fund	<u>82,968.00</u>	<u>107,292.00</u>	<u>112,332.00</u>
Total Expenses	<u>216,324.00</u>	<u>266,716.00</u>	<u>239,432.00</u>
NET INCREASE (DECREASE) IN FUND	<u>(13,350.00)</u>	<u>(21,116.00)</u>	<u>(50,832.00)</u>
MEMO: PER CAPITA DEFICIT BASED ON 786 MEMBERS		<u>(26.87)</u>	<u>(64.67)</u>

Exhibit B BUDGET & ACTUAL OPERATIONAL REPORT

INCOME:

	JUNE 30, 1968		JUNE 30, 1969		JUNE 30, 1970		JUNE 30, 1971		DECEMBER 1972	
	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL
Membership Dues	95,900.00	94,985.00	97,330.00	99,988.00	98,520.00	100,632.50	102,640.00	103,772.50	103,000.00	107,294.50
Journal	32,190.00	32,516.34	32,250.00	31,465.04	30,350.00	23,996.78	27,800.00	24,422.77	30,600.00	28,442.41
Annual Meeting	9,050.00	14,248.00	18,550.00	10,712.00	21,000.00	24,297.50	24,210.00	21,510.00	23,800.00	23,733.00
Annual Roster	50.00	1,692.63	1,500.00	1,273.96	10,200.00	4,161.25	5,550.00	925.00	10,300.00	5,395.00
Interest Income	3,000.00	3,323.76	3,400.00	3,787.30	3,400.00	3,287.25	3,800.00	3,545.96	3,200.00	1,813.42
Miscellaneous Income	1,700.00	825.68	1,200.00	1,265.05	1,000.00	1,589.08	1,200.00	3,071.85	1,200.00	6,148.34
What Goes On	1,000.00	500.00	1,000.00	700.00	—0	—0	—0	—0	—0	—0
Indirect Cost (EMCRO)										
Total Income	142,890.00	148,091.41	155,230.00	149,191.35	164,470.00	157,964.36	165,200.00	157,248.08	172,100.00	202,974.67

EXPENSES:

Salaries	36,780.00	37,527.80	42,230.00	44,669.44	46,500.00	44,952.74	46,500.00	50,054.18	54,000.00	59,794.23
Audit & Accounting	2,200.00	2,225.00	2,550.00	2,510.00	2,800.00	2,845.00	3,520.00	2,858.00	3,000.00	1,466.00
Auto Allowance & Expenses	1,200.00	1,200.00	1,200.00	1,203.75	1,200.00	920.00	600.00	559.86	600.00	609.21
Council Expenses	2,020.00	1,605.37	2,020.00	1,366.73	980.00	1,169.64	1,280.00	1,558.22	1,200.00	5,001.70
Contribution & Donation	20.00	20.00	20.00	20.00	20.00	20.00	20.00	225.00	100.00	100.00
HAMPAC	—0	—0	500.00	500.00	200.00	200.00	200.00	—0	200.00	—0
Dues & Subscriptions	870.00	785.28	870.00	1,033.23	950.00	970.42	650.00	554.26	900.00	930.02
Insurance	850.00	671.80	850.00	1,639.04	1,600.00	1,503.17	1,800.00	1,656.52	1,500.00	2,412.69
Library Contribution	100.00	100.00	100.00	100.00	100.00	100.00	100.00	—0	100.00	—0
Legal & Professional	3,200.00	3,175.00	3,200.00	1,345.00	1,500.00	—0	1,000.00	2,142.38	1,560.00	1,560.00
Meeting Expenses	3,000.00	3,298.28	3,200.00	3,876.38	4,000.00	4,387.83	4,000.00	3,956.98	4,300.00	5,242.60
Miscellaneous	300.00	251.61	300.00	164.87	300.00	225.92	450.00	161.64	300.00	495.65
Postage	1,930.00	2,235.32	2,130.00	2,684.56	2,530.00	2,965.88	2,880.00	2,424.44	3,000.00	2,034.35
President's Contingency Fund	500.00	80.10	500.00	197.94	1,000.00	646.74	1,000.00	38.00	700.00	135.41
Rent	4,490.00	4,496.88	4,490.00	4,862.48	4,950.00	6,834.60	7,220.00	7,502.64	7,560.00	7,560.90
Repairs & Maintenance	230.00	174.98	250.00	269.41	300.00	223.72	300.00	742.21	300.00	486.63
Retirement	4,200.00	2,710.00	4,000.00	5,839.00	5,330.00	5,708.37	6,000.00	3,451.13	4,000.00	6,024.90
Stationery, Printing & Supplies	1,400.00	2,644.34	1,400.00	2,935.40	3,000.00	2,987.15	3,500.00	1,821.04	3,000.00	4,914.67
Special Authorized Expenses	1,800.00	2,313.83	1,800.00	198.00	2,500.00	2,706.09	2,500.00	2,262.00	1,000.00	10,901.23
Taxes (FICA, U/C, FUTA)	3,450.00	2,028.83	2,450.00	2,264.86	2,600.00	2,428.89	2,700.00	3,003.46	3,000.00	4,318.96
Telephone & Telegram	1,700.00	1,766.37	2,000.00	2,318.65	2,000.00	1,970.86	1,700.00	3,565.50	2,000.00	5,172.90
Travel	6,110.00	6,012.50	9,600.00	2,861.09	7,700.00	6,443.55	10,000.00	4,041.46	9,000.00	4,718.61
Woman's Auxiliary	3,430.00	3,347.50	3,480.00	3,583.00	4,200.00	4,257.50	5,864.00	5,847.50	4,200.00	6,084.00
Committee Expenses	25,574.00	20,184.66	26,020.00	18,324.23	22,075.00	14,635.41	31,174.00	13,236.17	24,585.00	17,226.38
Journal Expenses	27,900.00	23,970.50	27,380.00	27,325.84	30,080.00	25,062.72	29,290.00	31,630.84	31,386.00	33,156.78
Annual Meeting Expenses	8,010.00	12,418.25	16,380.00	9,017.83	18,560.00	14,489.79	15,740.00	17,194.04	18,165.00	22,206.39
Roster Expenses	—0	426.32	—0	74.06	10,000.00	10,241.84	10,240.00	67.50	11,606.00	9,604.70
Furniture & Fixtures, (Depr.)	600.00	181.24	600.00	650.08		1,192.81	600.00	992.36	600.00	1,058.23
All Others									—0	3,107.69
Total Expenses	141,864.00	135,851.76	159,520.00	141,834.87	177,575.00	160,090.64	190,828.00	161,547.33	191,862.00	216,324.83
Net (Increase or Decrease)	1,026.00	12,239.65	(4,290.00)	7,356.48	(13,105.00)	(2,126.28)	(25,628.00)	(4,299.25)	(19,762.00)	(13,350.16)

Exhibit C—ACTUAL INCOME AND EXPENSE

	6/30/68	6/30/69	6/30/70	6/30/71	CHANGE IN ACCT. PERIOD 7/1 to 12/31/71	12/31/72
<i>INCOME:</i>						
Membership Dues	94,985.00	99,988.00	100,632.50	103,772.50	2,065.00	107,294.50
Journal	32,516.34	31,465.04	23,996.78	24,422.77	13,164.24	28,442.41
Annual Meeting	14,248.00	10,712.00	24,297.50	21,510.00	7.50	23,733.00
Annual Roster	1,692.63	1,273.96	4,161.25	925.00	22.50	5,395.00
Interest Income	3,323.76	3,787.30	3,287.25	3,545.96	1,415.09	1,813.42
Miscellaneous Income	825.68	1,265.05	1,589.08	3,071.85	2,159.82	6,148.34
What Goes On	500.00	700.00	— 0 —	— 0 —	— 0 —	— 0 —
Indirect Cost (EMCRO)					— 0 —	30,148.00
Total Income	148,091.41	149,191.35	157,964.36	157,248.08	18,834.15	202,974.67
<i>EXPENSES:</i>						
Salaries	37,527.80	44,669.44	44,952.74	50,054.18	28,821.26	59,794.23
Audit & Accounting	2,225.00	2,510.00	2,845.00	2,858.00	780.00	1,466.00
Auto Allowance & Expenses	1,200.00	1,203.75	920.00	559.86	240.00	609.21
Council Expenses	1,605.37	1,366.73	1,169.64	1,558.22	713.61	5,001.70
Contribution & Donation	20.00	20.00	20.00	225.00	— 0 —	100.00
HAMPAC	— 0 —	500.00	200.00	— 0 —	— 0 —	— 0 —
Dues & Subscriptions	785.28	1,033.23	970.42	554.26	157.60	930.02
Insurance	671.80	1,639.04	1,503.17	1,656.52	937.27	2,412.69
Library Contribution	100.00	100.00	100.00	— 0 —	— 0 —	— 0 —
Legal & Professional	3,175.00	1,345.00	— 0 —	2,142.38	780.97	1,560.00
Meeting Expenses	3,298.28	3,876.38	4,387.83	3,956.98	1,883.44	5,242.60
Miscellaneous	251.61	164.87	225.92	161.64	30.19	495.65
Postage	2,235.32	2,684.56	2,965.88	2,424.44	1,405.19	2,034.35
President's Contingency Fund	80.10	197.94	646.74	38.00	559.94	135.41
Rent	4,496.88	4,862.48	6,834.60	7,502.64	3,780.46	7,560.90
Repairs & Maintenance	174.98	269.41	223.72	742.21	150.25	486.63
Retirement	2,710.00	5,839.00	5,708.37	3,451.13	545.06	6,024.90
Stationery, Printing & Supplies	2,644.34	2,935.40	2,987.15	1,821.04	1,511.25	4,914.67
Special Authorized Expenses	2,313.83	198.00	2,706.09	2,262.00	— 0 —	10,901.23
Taxes (FICA, U/C, FUTA)	2,028.83	2,264.86	2,428.89	3,003.46	1,426.94	4,318.96
Telephone & Telegram	1,766.37	2,318.65	1,970.86	3,565.50	1,722.34	5,172.90
Travel	6,012.50	2,861.09	6,443.55	4,041.46	4,466.66	4,718.61
Woman's Auxiliary	3,347.50	3,583.00	4,257.50	5,847.50	118.00	6,084.00
Committee Expenses	20,184.66	18,324.23	14,635.41	13,236.17	476.57	17,226.38
Journal Expenses	23,970.50	27,325.84	25,062.72	31,630.84	18,404.19	33,156.78
Annual Meeting Expenses	12,418.25	9,017.83	14,489.79	17,194.04	— 0 —	22,206.39
Roster Expenses	426.32	74.06	10,241.84	67.50	854.24	9,604.70
Furniture & Fixtures, (Depr.)	181.24	650.08	1,192.81	992.36	— 0 —	1,058.23
All Others					315.78	3,107.69
Total Expenses	135,851.76	141,834.87	160,090.64	161,547.33	70,081.21	216,324.83
Net (Increase or Decrease)	12,239.65	7,356.48	(2,126.28)	(4,299.25)	(51,247.06)	(13,350.16)

Exhibit E—MEMBERSHIP AND DUES STRUCTURE
1962-1972

YEAR	TOTAL ACTIVE MEMBERS*	AMA DUES	HMA DUES	HCMS DUES	HMA STAFF	HCMS STAFF	BM STAFF
1962	623	\$35	\$60	\$65	2	3	12
1963	660	45	60	65	3	3	13
1964	677	45	100	65	4	3	15
1965	718	45	100	65	5	4	16
1966	743	45	100	65	5	4	21
1967	761	70	110	65	6	4	23
1968	768	70	140	80	6	5	24
1969	796	70	140	80	6	4	24
HMA-HCMS							
1970	789	70	140	80	11½		25
1971	825	110	140	90	12½		22
1972	863	110	140	90	13½		22

*Average increase per year—23.6 members

The committee has heard reports of various other projects that are covered in detail in the committee minutes. Liaison reports are presented at each meeting. At our last meeting, we met with Dr. Richard Adler of Family Medicine of Hawaii to discuss the plans and aims of this organization. We also appreciate the staff input of Mr. Thorson, Mr. Won and Mrs. Wauke.

John J. Lowrey, M.D.

HMSA-HMA MEDICAID PROGRAM, AD HOC

HOUSE ACTION: Adopted.

This committee was established by President William Iaconetti in response to a proposal by the HMSA in November of 1972. The HMSA proposal outlined their willingness to underwrite the Medicaid program in Hawaii. HMSA would assume underwriting responsibility for the entire medical program with the exception of skilled nursing home care. The proposal would be a joint undertaking with the HMA providing peer review for quality control. If savings were possible in this program and the costs lower than projected, it was proposed that the savings might be used to pay a reasonable fee to physicians and the remainder refunded to the DSS.

The committee met with members of the HMSA staff and the general features of this proposal were prepared and presented to the HMA Council. The committee recommended that HMA cooperate with HMSA in attempting to seek approval of the State for the underwriting of the Medicaid program by HMSA, and should this approval be obtained that HMA provide peer review for this program.

The Council did give its approval for this program and a liaison committee was then established which met with the members of the HMSA staff in late January of 1973. It was possible to work out the specific details of the peer review mechanism, including establishment of the review committees and the screening parameters and the mechanism of preapproval of elective admissions.

This proposal was then presented to the DSS by HMSA. A meeting was also held in which the proposal was briefly outlined to the director of the Department of Social Services and Housing by President Iaconetti and representatives from HMSA. No definite commitment has been made by DSS regarding this proposal at this time.

Recommendations: That continued efforts be made to obtain approval of DSS for this HMSA—HMA proposal.

Albert Chun-Hoon, M.D.

MATERNAL AND PERINATAL MORTALITY STUDY

HOUSE ACTION: Adopted with recommendation that committee continue to actively pursue the accumulation and dissemination of information relating to perinatal and maternal deaths.

The committee on Maternal and Perinatal Mortality has had no formal meeting this year. In an attempt to perform the task more expeditiously, the large committee has been divided into subcommittees: one for maternal deaths, one for perinatal deaths, and one to assist in either depending upon the workload. The Department of Health has been most cooperative this year in supplying us with statistics. Several hospitals have been very reticent to supply us with information and we have, therefore, been unable to do adequate evaluations. Under the present organizational format, the committee appears to be little more than an evaluation of statistics. In the next year, the committee needs to seriously review its role within this framework. In addition, two questions need to be asked:

(1) Should legislative authority be sought to gain access to records either through the Department of Health or the HMA?

(2) How can we best disseminate our information for teaching purposes?

Ralph W. Hale, M.D.

MEDICAL EDUCATION

HOUSE ACTION: Adopted as follows:

During the past year, the Medical Education Committee surveyed the status of continuing medical education in the State and participated in the following: (1) The EMCRO project undertook as part of its mission the education of physicians about its findings. Members of this committee participated in the feedback process to physicians participating in the ambulatory care and hospital portions of the study. (2) Offered its help to the ad hoc committee of the UH School of Medicine developing a conjoint medical residency program. (3) Members of this committee are cooperating with the UH School of Medicine in formulating guidelines for appointments to the clinical faculty. (4) Set up the mechanism for development of a medical education activities calendar for the State of Hawaii.

Recommendations: The committee offers the following recommendations for next year:

- (1) The committee continue to search for ways to use the information accumulated by EMCRO for continuing education for physicians.
- (2) Continue to cooperate with the UH School of Medicine and the directors of medical education at the hospitals in developing cooperative educational programs.
- (3) Study ways of promoting continuing medical education programs for physicians of the State.

Reginald Ho, M.D.

PEER REVIEW

HOUSE ACTION: Adopted.

This newly organized committee has primarily concerned itself with organizational problems in attempting to develop effective and uniform statewide peer review activities. The peer review committees are active in Honolulu County, Maui County and Kauai County. The status in Hawaii County is still undetermined since no representative from that County has attended any meetings. The need of an educational process to attain uniform, effective, objective and judicial peer review statewide becomes increasingly more pressing.

The various legislation and legal implications of peer review activities were studied and disseminated statewide.

This committee met with the Board of Medical Examiners to discuss mutual problems and to develop better liaison which has been neglected in the past by both parties. The discussions were fruitful to both parties and communication hopefully will continue and lend to more effective peer review activities. This committee also briefly surveyed the method of appointment of State Boards throughout the nation and concluded that at the present time, no major recommendations should be made to change the present method of appointment but that discussions with the Governor of Hawaii should be initiated regarding peer review activities and HMA input.

A position statement on acupuncture was developed by this committee and subsequently approved by the Council with some minor modifications. In essence, the HMA position was that it regards this untested modality in the State of Hawaii as an experimental procedure, that it should be integrated into the practice of medicine until such time that it can fully be investigated and that a review board of physicians from the HMA and the UH Medical School evaluate and make recommendations as to the future role of this modality in the practice of medicine. This position was presented to the Senate Hearing on Acupuncture.

The general problems of peer review activities were also discussed. It was noted that at present, HMA is only involved in County Society peer review activities. However, it fully recognizes that daily peer review occurs within the hospitals. Some communication should commence with the hospitals of respective counties to strengthen disciplinary and educational efforts of peer review.

And lastly, quarterly reports from the County peer review committees were recommended and subsequently approved by Council. The primary purpose of these reports would be to develop an educational program for the HMA members in the form of a simple newsletter that could be included with other HMA publications or bulletins.

Recommendations:

- (1) That statewide peer review activities be conducted uniformly, objectively and judiciously and that this committee continue its efforts to attain this goal.
- (2) That continued liaison with the State Board of Medical Examiners be continued with communications through the Council.
- (3) That the House of Delegates accept the acupuncture position statement and whatever action is necessary to effect this position.
- (4) That this committee maintain liaison with the PSRO component of the Hawaii Foundation for Medical Care.
- (5) That this committee meet with representatives of HMSA regarding claims review and utilization standards which are applicable statewide in an effort to better enable the physicians and HMSA to understand the past problems and prevent future problems.

Winfred Y. Lee, M.D.

PROFESSIONAL LIABILITY INSURANCE

HOUSE ACTION: Adopted.

The Committee has continued to function in assisting physicians of the Hawaii Medical Association to obtain professional liability coverage.

Eight physicians refused professional liability coverage by Argonaut Insurance Company were reviewed. Professional liability insurance coverage was obtained through Argonaut for six of these physicians with a minimal preliminary investigation.

Two physicians had problems which required an extensive investigation. Both these physicians met with the Professional Liability Committee so that the problems encountered in obtaining insurance for them could be discussed with them. In one of these cases limited coverage was obtained for the physician and in the other, no coverage could be obtained from Argonaut.

The Professional Liability Committee has a meeting planned with the Argonaut Insurance Company during May, 1973. At this meeting a rebate of premium for association members covered under the Professional Liability Plan with Argonaut will be discussed. At that time we will discuss whether a rebate in premium will be given or whether the Professional Liability insurance premium for coming years will be reduced.

The Professional Liability Insurance Committee was actively involved with the Legislative Committee, the result of which was passage of the Professional Liability Statute of Limitations bill. Further work is being done at present on proposed legislation for an arbitration panel to resolve those Professional Liability cases in which a suit has been filed, in spite of review by the peer review committees of HMA. The Professional Liability Insurance Committee's representative attended a national conference concerned with this problem.

Alan Pavel, M.D.

WORKMEN'S COMPENSATION

HOUSE ACTION: Adopted.

At this committee's first meeting of the year it was decided that there were two major areas in which the committee would need to be involved. The first would be to continue attempts to enact legislation which would change the method by which the fee schedule for workmen's compensation would be established. Meetings were held with the director of the Department of Labor and with the major representatives of employers and the insurance industry, and it was possible to agree on a compromise bill, Senate Bill 1043. This bill provides an automatic mechanism by which the fees would be increased or decreased yearly. The basic schedule would be Regulation 31 which became effective on August 13, 1971, and is the current basis for fee charges in workmen's compensation. The automatic adjustment to reflect increases or decreases would depend on the consumer price index for the Honolulu region prepared by the Bureau of Labor Statistics of the U.S. Department of Labor which have occurred in the four calendar quarters ending September 30 of the year preceding. For the period from July 1, 1973 through December 31, 1973, the charges in Regulation 31 should be increased by the percentage increase which occurred during the period from August 1, 1971 to September 30, 1972.

Since Regulation 31 appears to have been established on the basis of the relative value study of 1965, using a factor of 6.0, this increase amounts to a 0.3 increase in the factor so that fees from July 1, 1973 to December 31, 1973 would be at a rate of 6.3. A new fee schedule would be promulgated by the Department of Labor as soon as this legislation is enacted setting the new fee rate, effective July 1, 1973.

The legislation also provides that the director shall review and if necessary revise Regulation 31 every three years, with the first review to be completed no later than December 1, 1974, to be effective January 1, 1975.

In our testimony before the Senate committee hearing this bill, we made known our objection to the use of the definition of a specialist and our objection to the fee differential granted specialists under the workmen's compensation fee schedule.

The other area of involvement which the committee felt required our attention was that of vocational rehabilitation for injured workmen. A subcommittee met and drafted an outline of a plan which would entail a team approach to certain difficult problems concerning injured workmen. It was possible to have joint meetings with the director of the Department of Labor and the employers' representatives in which this was discussed briefly. The spirit of cooperation noted in these meetings suggests that there is great interest in this area and that a cooperative approach might lead to more effective rehabilitation measures for the injured workman.

Recommendations:

- (1) The HMA should drop its suit against the State and the director of the Department of Labor, over the workmen's compensation fee schedule if appropriate legislation is enacted.
- (2) The Workmen's Compensation Committee should begin a detailed study of Regulation 31 and make recommendations for its revision to the director of the Department of Labor, so that these changes may be incorporated in the revision to be promulgated before December of 1974.
- (3) Further efforts be made to establish an effective overall rehabilitation plan for injured workmen in this State.

Albert Chun-Hoon, M.D.

COMMISSION ON MEDICAL EDUCATION AND PEER REVIEW

HOUSE ACTION: Adopted as follows:

This newly organized commission consists of five committees; Medical Education, Peer Review, Professional Liability,

Publications and Maternal and Perinatal Mortality Study. The major activities of each committee have been summarized in their reports.

The unresolved problem of continuing medical education for our physicians continues. It had been hoped that HMA involvement in such projects as the HMA-Payne Study and the EMCRO endeavors would ultimately also be valuable as one of the formats for continuing medical education. This suggestion was approved by the Council, and it now remains the task of the Medical Education Committee to study and recommend a definitive format that can be utilized for continuing medical education from the results of the study. It is certainly recognized that the major educational impact occurred in those physicians directly involved in these projects but hopefully, the whole medical association will also benefit as a result of these studies.

Medical education from peer review activities has been given serious consideration this year and hopefully publications will be forthcoming within the next year from data obtained from our county peer review committees.

It appears that the House of Delegates annually considers and approves the necessity of continuing medical education but as commissioner, I feel that an effective and continuing program of physician education has not evolved. A decision must be made as to the urgency or even the need for a continuing medical education program for the HMA.

Recommendations:

- (1) That the House of Delegates mandates this commission and its committees to study and make definite recommendations by the next annual meeting regarding a long-term format for continuing medical education of HMA physicians.
- (2) That this Commission and its committees study the best means of evaluating continuing medical education for HMA members including the question of mandatory requirements and that appropriate recommendations for implementation be prepared for the consideration of the next House of Delegates. (Note: A Bylaws change may be required if a mandatory condition is imposed upon the membership.)
- (3) It is strongly urged that a program of continuing medical education for all members be pursued.

Winfred Y. Lee, M.D.

COMMISSION ON MEDICAL SERVICES

HOUSE ACTION: Adopted.

The Commission on Medical Services consists of two committees: Fee Survey and Workmen's Compensation. The Fee Survey Committee has met on several occasions and is continuing to update the Relative Value Studies. The Workmen's Compensation report is self-explanatory.

Albert C.K. Chun-Hoon, M.D.

LEGAL COUNSEL

HOUSE ACTION: Filed.

This report covers the calendar year 1972, during which your legal counsel attended the meetings of the House of Delegates and most of the more frequent Council meetings, and handled administrative calls, correspondence, and matters for the Association as required by your staff and officers.

The subjects on which we conferred included questions on the Benevolent Fund, your audit, the amendments to the Charter and the Bylaws, the Medicine and Religion brochure, EMCRO and other RMP and RCUH relationships, physician's assistant legislation, Medical Practice Act and legislation, Emergency Medical Care contracts, continued occupancy of Mabel Smyth, The Tumor Registry, a query to the Social Se-

curity Administration reference confidential information, proposal for corporate practice by a California corporation, and miscellaneous other items.

There was some continuation of service by legal counsel relating to the appeals to the Circuit Court and the Labor and Industrial Relations Appeal Board on the Workmen's Compensation fee schedule.

Your legal counsel has no recommendations.

V. Thomas Rice

AMA DELEGATE

HOUSE ACTION: Adopted.

The 1972 Annual Meeting of the American Medical Association was held in San Francisco in June. The clinical session was held in Cincinnati in November. There were over 100 reports and 200 resolutions presented for deliberation at these sessions.

With Congressional passage of HRI (amendments to Social Security Act) in October, 1972, the Professional Standards Review Organization became the major topic of concern and discussion at the clinical meeting. At the outset of this meeting there appeared to be an air of stunned disbelief that the amendments had passed so quickly. There was vagueness and confusion as to the true impact of this legislation (much of the same prevails today). Before adjourning it was the decision of the House to ask all physicians to approach the new law with cautious but positive participation.

The Board of Trustees proceeded to structure the American Medical Association Advisory Committee on PSROs, which includes seven Task Forces with broad representation from the health care industry. The magnitude of the job ahead is well reflected in a quote from the AMA news of 4/16/73. "The Federal government and the nation's medical leaders are still a long way from settling on a Professional Standard Review Organization 'game plan'." Possibly now, with the confirmation of Charles C. Edwards, M.D. as HEW's Assistant Secretary for Health and William I. Bauer, M.D. as government's PSRO chief, we may see some increased activity.

Other significant national political issues dealing with medical care which are provoking resolutions and discussions include National Health insurance and AMA's Mediredit Bill HR 2222, HMO's, and the sweeping changes proposed by President Nixon which affect RMP, CHP, the Hill-Burton program, medical education and fiscal control thru Phase III.

The AMA leadership encourages all its members to clearly understand the above issues so they may make positive and meaningful decisions at the local level.

At both meetings there was continual discussion and scrutiny of the health manpower "crisis", the physician's assistant—the scope of his responsibilities, education and regulation. It was recommended that Medical Societies discourage development of stiff licensing laws; and instead support certification based on National Standards. The House opposed employment of physician's assistants by hospitals and by full-time salaried hospital based physicians.

Various reports of the Board of Trustees reflected their effort to seek and maintain the highest level of fiscal responsibility for the AMA. Their surveillance of operational costs and program cost benefits has resulted in abolishing certain committees and reducing the membership of the remaining committees.

In the past year your House of Delegates has encouraged all members to:

- (1) Be meaningfully involved in community and civic activities.
- (2) Work towards realistic resolutions of the malpractice crisis.
- (3) Explore methods by which specialty societies and other medical organizations may have more AMA input.
- (4) Encourage insurance companies to provide non-discriminating coverage for alcoholism and drug dependence.
- (5) Not support any program which attempts to sell free standing catastrophic health insurance.

Recommendation: That the HMA House of Delegates at this convention:

- (1) Formally select the Hawaii Foundations for Medical Care as their choice for PSRO for Hawaii and that the staff of HMA be directed to provide assistance when necessary.
- (2) Officially notify AMA of their support of Medicare HR 2222.

George H. Mills, M.D.

HAMPAC

HOUSE ACTION: Filed.

The Hawaii Medical Political Action Committee met on five occasions during the year. New appointments were made to the Board of Directors assuring representation from each State senatorial district. Being an election year, HAMPAC provided campaign fund support to 21 announced candidates in both the U.S. and State of Hawaii House of Representatives elections, 18 of whom were successful. In spite of 1972 being an election year there was no appreciable increase in membership participation. There was a total of 186 active physician and auxiliary HAMPAC members in 1972 representing approximately 21% of the physicians of HMA and approximately 1% of the auxiliary. Yet it was HAMPAC 1972 bipartisan campaign support by this relatively few number of physicians and their wives that has helped open the doors of 18 legislative offices to various HMA committee chairmen in 1973. During November 1972 an appeal was made to all physicians, presidents of County Societies and to the Woman's Auxiliary by the president of HMA to encourage and stimulate them into taking a more active and effective bipartisan role in governmental affairs during this off-election year in order to become a stronger influence during 1974. The voice of the practicing physician must be heard by legislators in whose committees the future of the practice of medicine and delivery of health care in Hawaii will be determined. Bipartisan support of those legislators sympathetic to the efforts of the professional association of physicians desiring to improve the quality and delivery of health care in our State must be made on a continuing basis by both HAMPAC and the individual physician and his wife.

L.Q. Pang, M.D.

PRESIDENT

HOUSE ACTION: Adopted as follows with expression of gratitude to the President.

This has been an especially dynamic year demanding the best efforts of all involved as we have continued to respond to increasing requests from the community and the University for leadership and advice in medicine and have accepted greater responsibility in guiding and initiating actions designed to meet the medical needs of Hawaii's people.

I would like to thank those who have assisted me in performing the duties of this office whose help has been invaluable throughout the year. I would especially like to thank the members of our excellent staff under the able leadership of the Executive Director, Mr. Tom Thorson. We are indeed fortunate to have such a loyal and devoted group of people on our staff. I would also like to thank the President's assistant, Dr. Elisabeth Anderson, the officers, the council, the commissioners and the many hard working committees for the many hours devoted to the activities of the Hawaii Medical Association.

The council has met monthly and the executive board almost bi-monthly with commissioners of your organization, chairman of public relations, the president's assistant, administrative staff and concerned members invited. They have provided excellent thoughtful counsel in determining the direction of your association. The commissioners have kept the officers apprised of significant committee activities thus enhancing the

whole organization. Without competent committees, we could not function for the diversity of directions in which we are moving demands devoted clear thinking and action.

During the past year your organization has:

(1) Begun formation of a State-wide emergency medical system which will include the most modern equipment, two-way monitoring systems and highly trained emergency technicians in this eventual operation.

(2) Reorganized committee structure to reduce the numbers of committee to the most effective operating body possible.

(3) Held a constitutional convention to make necessary changes in the Bylaws as recommended by the 1971 AMA field study, to accomplish transfer of the foundation from the Honolulu County Medical Society to the HMA in order to provide a mechanism for the HMA to assume Professional Services Review Organization functions as required under Public Law 99603, and others designed to streamline workings of your organizations.

(4) We have begun to gather the fruit of EMCRO, our study of means to measure quality of medical care delivered, and results now being returned to individuals and hospitals should be informative and of value for medical education. Many hours of your time has gone into EMCRO, and we hope that although the project itself will end in June, that the methodology and findings can be applied to the development of other projects by the HMA.

(5) The orderly establishment of a State-wide peer review system is almost completed and this too will be of great significance in the near future. Due to the foresight of your past president, Dr. Herbert Chinn and to the devoted efforts of many this past year your organization is now in a position to effectively function as a review organization for medical care in Hawaii. This must be one of our major undertakings in the next year.

(6) Presently several considerations are being discussed with the Department of Social Services and Hawaii Medical Services Association in the area of health care delivery to DSS patients. Cooperative efforts are being made to design means to insure quality of care while promoting effective and efficient utilization of medical resources with the Hawaii Medical Association providing utilization and claims review, HMSA underwriting the program and assuming the financial risk. Assuming a leadership role in this important project will not only benefit you and the profession but also benefit the welfare of the patient.

(7) The Hawaii Medical Association and the Academy of Pediatrics has been meeting with the Department of Social Services to offer to develop a program of greatest medical benefit in screening approximately 42,000 DSS children as required by Federal Law. Limited funds require sound and clear thinking and cooperation if this program is to be of benefit to Hawaii's children.

(8) Our organization has also been successfully working in the areas of Workmen's Compensation, developing disability guidelines and a plan for rehabilitation hopefully offering constructive solutions to many of the economic and medical problems. We have successfully negotiated the new plan for a more equitable reimbursement for Workmen's Compensation claims.

(9) We continue cooperative efforts to establish a major cancer center in Hawaii having determined that the executive committee should be executive rather than advisory and through the efforts of your cancer committee developing a package for clinical cancer research in Hawaii, one of the three major division of the proposed central project. Your cancer committee has also reviewed and aided in other areas, such as the recently proposed State-wide breast cancer screening project.

(10) Health care delivery is a fluid ever-changing system reflecting the social, cultural, economics of our State and your Community Health Committee has been active in encouraging windward planning group, Hauula Clinic, in reviewing various proposals for State-wide medical services encouraging some programs and blocking others not so soundly based. Waianae and Kalihi are other areas being supported joining with CHP, University of Hawaii and the Department of Health. This committee lends its best efforts to render sound advice and

implement action needed to solve common problems affecting the State.

(11) The manpower committee has given deep consideration to the training, education and certification of various types of physician assistance, nurse practitioners and physician's support personnel and has developed a cooperative legislation allowing physicians to use these personnel most effectively in expanding medical services.

(12) The legislative committee has spent long hours on major bills on drug dispensing, statute of limitations, health manpower, tumor registry, care for minors and other bills through this session. Your school health, substances abuse, environmental health, and public health committees have all been working hard on projects such as the Waikiki Drug Clinic providing information on the treatment of drug crises and drug education, the impact of various state developments, such as highways and sewage treatment systems. We have continued to be deeply involved in helping design and deliver Hawaii's medical care. To continue to do so, requires the thoughtful dedication of every member of the Hawaii Medical Association. Your association should continue to function closely with the University of Hawaii Schools of Medicine, Nursing and Public Health with the Department of Health, CHP keeping abreast national and local developments in the health fields and being active in planning that is taking place on local and federal levels. We already represent 85% of all practicing physicians. This is a great body of dedicated people.

This coming year as our strength and unity continues to grow, it will be crucial that our strength be consolidated in reaching sound and effective decisions in the many areas of health care we represent, and in meeting our most pressing problem of 1973 the establishment of an effective PSRO.

Recommendations: To accomplish the above, I strongly recommend that:

- (1) Endorse the recommendations of the Finance Committee to provide financial support to continue the many activities in which we are presently engaged.
- (2) That we change the date of our annual meeting from early May to fall in order to avoid the conflict which occurs annually with the annual meeting and legislative activities occurring almost simultaneously.
- (3) That an active investment program be initiated to augment the building fund and to support other activities of our association.
- (4) To encourage the involvement of all factions of medicine in our association so that the Hawaii Medical Association may be truly representative of our membership.

I would like to extend to you my sincere thanks for giving me the honor of serving as your President for this past year. The opportunity of working with so many individuals who devote their interest, time and talent to the workings of our association has been enriching and enjoyable to me. I will be pleased to serve the incoming President and the membership in any way that will be most helpful.

William E. Iaconetti, M.D.

RESOLUTION NO. 4—CLINICAL PRACTICE AND GOVERNMENT—Introduced by Dr. Herbert Y.H. Chinn

HOUSE ACTION: Adopted as follows:

RESOLVED, That the AMA be asked to request that advisory bodies to the President and other branches of the federal government concerned with medicine, health, and health care delivery include representatives from the members of the medical profession actively engaged in the clinical practice of medicine and who are representatives from state medical associations.

HOUSE OF DELEGATES REQUEST

HOUSE ACTION: Requested a report from the Hawaii Foundation for Medical Care to be submitted to the next House of Delegates.

REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

BYLAWS

HOUSE ACTION: Adopted with expression of gratitude for the work of the committee.

The Bylaws and Parliamentary Committee extensively reviewed the Charter and Bylaws including the adoption of the decimal numbering system.

Harry L. Arnold, Jr., M.D.

PUBLICATIONS

HOUSE ACTION: Adopted.

The Publications Committee had several meetings during the year. The following actions were taken:

(1) Accepted a new rate for the Journal from the Star Bulletin Printing Company with a possible 25% increase over the present rate which was based in 1968.

(2) Accepted the request of the California Medical Association on behalf of the United Media Association for an increase from ten to fifteen percent on all collected net billings from display advertisers and proposed to raise Mrs. Jurry's commission from ten to fifteen percent.

(3) Recommended to the Council that the HMA roster be published annually. (This was voted down by the Council)

(4) Accepted the prints made by Dr. Meryl Haber to use for future Journals and also permitted Mr. Paul Steward to explore the possibilities of reprinting Dr. Haber's prints to be distributed among the advertisers.

(5) Permitted Dr. Arnold, Jr. to devote a whole issue on the presentation of Dr. Ernest Howard, Executive Vice President of the AMA, to the AMA House of Delegates.

(6) Granted the American Cancer Society a free ad in the Journal about women getting Pap tests.

(7) Made a request to the officials of the Pharmaceutical Society to encourage its members to continue their subscriptions to the Journal even though the pharmacist's page will be discontinued.

At present, the Committee is exploring the possibility of publishing the Hawaii Medical Journal on a monthly basis with the following points in mind: Additional advertising, staff, membership readership, costs and so forth. A survey will be made of the membership regarding these points.

The Committee feels Dr. Harry Arnold, Jr. is doing a good job as the Editor and recommends that he continue in that position.

L.Q. Pang, M.D.

HAWAII MEDICAL JOURNAL EDITOR

HOUSE ACTION: Adopted with following comments: Agreed with efforts to revitalize the journal including possible monthly publication; recommended continuation of special pages (such as Hawaii Academy of Family Physicians, Hawaii Heart Association) and County Medical Society News at the expense of the individual society or organization; continuation of columns Ruminations and Notes and News.

We have continued to publish the Journal every two months during the past year, but the average size has dropped from 96 pages for the first 3 issues to 68 for the last 3, in order to economize. An average of 3 original articles per issue has been adhered to, and slightly over 3 editorials, often written by invitation and signed by the author. Our own editorials are now all initiated by the writer.

Advertising has fallen off; average pages per issue for the year was 32, with every issue over 30 but January-February, 1973, which carried 22½. Mr. Steward made great progress at a meeting of State Journals West, our national-advertising hui, in San Francisco, late in February, where the advertising woes of other journals as well as ours were thoroughly discussed and solutions for them worked on. Our rates are to be raised 10 to 20%, and we are economizing on content by (1) accepting lower papers and shortening those we do take, (2) reducing the space given new members to about ¼ by using smaller pictures, smaller type, and briefer data; (3) eliminating the President's Page and allowing him, if he wishes it, equal space for the leading editorial in each issue; and (4) printing Officers and Contents on one page.

In addition, Mr. Steward is working out the logistical problems involved in going monthly, and by annual meeting time we will have a firm recommendation on this. The plan would be to put out a magazine about half as large, twice as often.

Dr. Philip Jones's *Slants and Angles* has been dropped, at his request, and replaced by *Ruminations*, written by Robert Moser, our Contributing Editor from Wailuku.

Whether we can justify the cost of publishing the 2 or 3 pages now given to the Hawaii Academy of Family Physicians and the Hawaii Heart Association is questionable. As an editor, we should like to keep them: they are informative and useful—if they are being read; but are they being read? If the House of Delegates members haven't read them and don't know of their own knowledge that they are worthwhile, they ought to instruct us to discontinue. We recommend that the House of Delegates instruct us to discontinue publication of County Society News: these summaries are probably read by no one, and they do cost money to print. Such basic news of county societies as election of new officers would still be carried by Henry Yokoyama in his *Notes and News*, which we believe is widely read; certainly it richly deserves to be; anyone who doesn't read it is missing a treat and a lot of information about himself or his friends, or both.

We have 16 papers awaiting publication now, about a year's supply, and are trying to reduce this by about half.

We believe the *Journal* is a great credit and a valuable asset, and that its future is brighter than its past, and we recommend that you authorize its continued publication with the above suggested changes.

Harry L. Arnold, Jr., M.D.

PUBLIC RELATIONS COUNSEL

HOUSE ACTION: Adopted.

During 1972, Public Relations Counsel continued to advise and assist the Officers, Executive Director, Public Relations Committee Members and individual Association members as requested. These requests or assignments varied from:

(1) The planning, establishing, coordinating and staffing of a News Media Lounge at the Association's Annual Meeting. This action resulted in widespread news coverage on the events, daily newspaper stories from personal interviews between reporters and guest speakers and publicity for the installation of new officers.

(2) The planning, preparing and assisting of the Officers in a general news conference following the release of the HMA report on EMCRO.

(3) Assisting individual members in publicizing their election, appointment and/or activities in a professional and dignified manner.

(4) Continually meets informally with members of the working press to assure open lines of communication between the news media and the Association.

Paul J. Steward

HEALTH FACILITIES

HOUSE ACTION: Adopted with request that specific recommendations be brought to the next House of Delegates.

The present chairman of the HMA-HFC assumed his post from Dr. Gordon Liu in September, 1972. The committee has met monthly. Initial meetings dealt with the purpose and future functions of the Committee. The following were proposed and adopted:

(1) Finish ongoing discussion on the proposed revision of the hospital regulations under Chapter 12 of the Public Health Regulations.

(2) Study Feasibility of Intermediate Care Facilities (ICF) in the State.

(3) Provide liaison with hospitals and their staffs, Hospital Association of Hawaii and the School.

(4) Study distribution and availability of state health facilities.

The Committee reviewed and discussed with Dr. David Holiday, Department of Health, the proposed Chapter 12 regulations revisions pertaining to hospitals. After several meetings, a final draft was approved and further action would be through the DOH.

Several meetings were held with ECF administrators and jointly with the Honolulu County Medical Society Utilization Review Committee to explore the feasibility and need of ICF. Although a need for ICF's may exist, existing regulations are obscure and almost nonexistent with regard to construction and staffing and it was felt that further discussion should be deferred until Federal regulations and guidelines are promulgated.

Dr. John Sheedy, medical consultant at DSSH, discussed at a combined HMA-HFC and URC-HCMS meeting his draft on patient eligibility requirements and services rendered in skilled Nursing Facilities. It was felt that the proposal was an initial start toward definitive guidelines on patient care developed by physicians. The draft will be further discussed by other county medical societies, utilization review committees and others concerned with patient care.

At another combined meeting in February 1973 the Committee focused on the problems of retroactive denials in acute hospitals. Various factors were discussed as to adequacy and pertinency of medical records; physician visits; discharge planning; appeal mechanisms; etc.

Future meetings will deal with:

(1) Categorization of hospital emergency rooms

(2) Progress in Medical School's 3rd and 4th year programs with varied community hospitals

(3) Further discussion on ICF's

(4) Possible briefing and liaison with Comprehensive Health Planning regarding the status of State Health Facilities.

Walter W.Y. Chang, M.D.

INTERPROFESSIONAL RELATIONS

HOUSE ACTION: Adopted with expression of gratitude to the chairman; asked that the budget request be submitted to the Finance Committee for Council action in the fall.

This committee, formerly known as the Association of Professions Committee, was successful in organizing after years of futile attempts, the statewide HAWAII ASSOCIATION OF THE PROFESSIONS, this year. The charter of incorporation was granted on November 1, 1972 and the Bylaws adopted by

the following seven charter organizations:

- (1) Hawaii Medical Association
- (2) Hawaii Dental Association
- (3) Bar Association of Hawaii
- (4) Hawaii Optometric Association
- (5) Hawaii Society of Certified Public Accountants
- (6) Hawaii Veterinary Medical Association
- (7) Hawaii Society of Professional Engineers

The Board of Directors of H.A.P. composed of two representatives from the seven professional societies elected the following officers:

President: Cesar B. de Jesus, M.D.—HMA
Vice-Pres.: R. Charles Bocken, Esq.—BAH
Secretary: Steven Raiser, D.V.M.—HVMA
Treasurer: Desmond Byrne, C.P.A.—HSCA

H.A.P. is to the professions somewhat like the Chamber of Commerce is to business. It will serve as the forum for the interchange of information which has to do with the general welfare of the professional status of each member group. Consensus of agreement is generally in the areas of legislative activities, public policy, governmental involvement and controls and in public responsibility.

The Medicine-Religion Subcommittee finished and published the pamphlet "When Illness Comes . . ." and were distributed to Kuakini and St. Francis Hospitals. Response from the Queens Medical Center is forthcoming. Monthly meetings with the clergy were held and Dr. Pershing Lo attended the Regional Meeting in Salt Lake City.

The Medical-Legal Subcommittee continued to serve as a "sounding board for medicine and law." Early in 1972 a project to study medical panels and other alternatives to medical malpractice suits was made. Following this a statement was prepared by the lawyer-members of the Subcommittee for publication in the Bar Association Bulletin. Dr. George Schnack testified on the HMA bill to fix the statute of limitations. The bill passed both Houses at the time of this report. The Subcommittee completed revision of the Interprofessional Code and was adopted by the HMA Council at its February meeting. It will be distributed to all physicians and lawyers in Hawaii. A Medical-Legal Symposium on the subject "Peer Review & Due Process" attracted a large and involved audience.

Recommendation: That the Hawaii Medical Association continue to support the Hawaii Association of the Professions in cooperation with the other professional organizations.

Budget Request:

Annual membership dues in H.A.P.—\$100.00

Cesar B. de Jesus, M.D.

INTRAPROFESSIONAL LIAISON

HOUSE ACTION: Adopted as follows; referred budget request to Finance Committee for Council action in the fall.

This committee worked with the Health Careers Council to produce a satisfactory Health Careers Day at the HIC in October. Approximately 1800 students attended and approximately 20 organizations were represented in the health fields.

The Woman's Auxiliary worked extremely hard on this project and was mainly responsible for its success. The Department of Education also gave us great assistance and we feel that this Careers Day should continue. Its continuing success, though, would depend upon the cooperation of many of the other health professions. It is hoped that the Woman's Auxiliary would take more of a leadership role in continuing Health Careers Day.

Also, a meeting was held with representatives of the students of the Hawaii Medical School and also representatives of interns and residents at various hospitals. The Hawaii Medical Association has encouraged membership by the students and by other interested physicians but since almost all of these reside in Honolulu County, it is felt that the Honolulu County Medical Society should be the main recruiting body.

Recommendation: The Hawaii Medical Association requests the Woman's Auxiliary to take over leadership in the planning and staging of a Health Careers Day and continue to assist in a leadership position in the Health Careers Council.

Finances at the Present Time:

There is no Health Careers Day planned for 1973, therefore, I do not feel the committee will require any funds this year. We will require a budget for 1974 in the amount of \$500.00.

H.W. Goebert, Jr., M.D.

HEALTH MANPOWER

HOUSE ACTION: Adopted with recommendation that the total medical manpower needs of the State as well as fees, licensure, and educational requirements be closely scrutinized and evaluated.

The Health Manpower Committee of the Hawaii Medical Association met virtually monthly, and even more frequently on occasion. The committee served as a forum for many agencies and individuals concerned with the general problem of health manpower. Among the HMA members of this committee were representatives from agencies employing Allied Health Manpower such as the Kaiser Permanente organization, Straub Clinic and the Pediatric group. Standing invitations were issued to representatives from the School of Medicine, the School of Nursing, Tripler General Hospital, the Hawaii Nurses Association, Comprehensive Health Planning and Regional Medical Program; also attending the regular meetings from time to time were representatives from the School of Public Health, the chairman of the Board of Medical Examiners, legal counsel of HMA, and Senator George Mills. The School of Medicine elected to send as their regular attendee Dr. Richard Smith, the nationally recognized authority on the Medex programs, whose attendance was extremely valuable to all.

The primary mission of the HMA Health Manpower Committee was interpreted to be to serve as an advisory body to the HMA officers and Council on matters pertaining to health manpower.

Among the issues which were considered by our committee, the following appear especially significant:

(1) A position on the residency requirement for physicians was recommended, however, no action was necessary since the law was declared unconstitutional and the Attorney General ceased further efforts directed toward enforcement.

(2) Non-ECFMG Pass Physicians—The Committee supported efforts to work with and encourage in any feasible manner those foreign medical graduates attempting to enter the provider system in Hawaii but unable to pass the ECFMG examination. Committee worked closely with the School of Medicine, RMP and CHP in this matter, and recommended to encourage candidates to attend existing appropriate educational programs on the mainland.

(3) Physicians' Assistants and Nurse Practitioners—The Committee recommended that HMA support the Physician's Assistants concept; for those categories of assistance functioning independently (Type A), HMA should support an educational program requiring two years of formal education and/or its equivalent as demonstrated by equivalency and proficiency examinations. Committee recommended acceptance of the categories of health personnel and specifications of training programs as they were identified and accredited by the AMA.

(4) Position on Physicians' Assistance—A position paper on Physician's Assistant was developed for the HMA.

(5) Emergency Mobile Technicians—Committee recommended support for the emergency mobile technicians as developed under the HMA Emergency Medical Program and meets national standards.

(6) Joint Practice Committee—Committee recommended full cooperation with the nursing profession in the establishment of a state joint practice committee to identify and discuss roles of nurses and physicians.

(7) Coordinated Manpower Project—Committee fully supported and worked intimately with the University of Hawaii through the Capital Health and Social Welfare Manpower Education Council in order to develop a center at the University of Hawaii for gathering, storing, and retrieving health manpower information.

(8) Legislation Allowing Allied Health Manpower to Function in Hawaii—The Committee cooperatively developed a delegatory type amendment to the Medical Practice Act to allow delegation by physicians of tasks to physician assistant personnel which was adopted.

(9) Needs for Physician's Assistants in Hawaii—Committee recommended that an up-to-date assessment of needs should again be made before the School of Medicine embarks on a training program for physician's assistants. Medex.

H.H. Chun, M.D.

PUBLIC AFFAIRS

HOUSE ACTION: Adopted with following recommendations: (1) Journalism Award to include TV and radio entries, (2) One award of \$500.00 may be given annually at the discretion of the committee, (3) Agreed that a budget for the Hawaii Academy of Science and Engineering Fair as well as prizes be continued.

Your Public Affairs Committee has functioned for the first year as a combined Public Relations, Quackery, Operation Pacific and Awards Committee. Its function has been, at least subjectively, satisfactory and where necessary, the functions of the separate committees have been carried out by smaller subcommittees. The committee has also been arranged to contain at least one representative from each of the working committees of the HMA. This has speeded over vertical communication and functioning significantly but not to the extent that had been hoped, largely due to attendance factors.

During the year we have considered several problems in quackery. For medico-legal reasons, we are less effective than we would like to be.

We have established mechanisms for awarding for the Sheen Award (AMA) and A.H. Robins Award and hope to expand our journalism awards to radio and TV.

Our budget is largely for the awards committee. We need \$760.00 for the journalism awards, first and second prizes which are \$500 and \$250 respectively, plus \$10 for engraving of the perpetual trophies. We will also need \$100 that we annually donate to the Hawaii Academy of Science and an additional \$100 for 6 projects from its Hawaiian Science and Engineering Fair.

This has been an enjoyable year and I think, a functional one. I am looking forward to a successful 1974, improving the physician's image still further.

Rowlin L. Lichter, M.D.

COMMISSION ON INTERPROFESSIONAL AND PUBLIC AFFAIRS

HOUSE ACTION: Adopted.

The five committees of this commission have been very active during this past year and their individual reports are recorded elsewhere. The chairmen did yeoman duty.

(1) The *Public Affairs Committee* was active but could have been more so with better attendance by the members, a chronic problem. The budget is minimal and effectively spent.

(2) The *Interprofessional Liaison Committee* under Dr. Cesar de Jesus has taken the first long step of forming and joining the Association of Professions in Hawaii. It should be nurtured.

(3) The *Intraprofessional Relations Committee* again staged a successful Health Careers Day. More help from other health professional groups is needed.

(4) The *TV-Radio Committee* bettered our image with HMA *Hot Line* and other programs. Money is a major problem and their efforts to get more funds should be commended. The committee is enthusiastic and hard working and the program should be restarted at the soonest opportunity if funds become available. Their resolution asking individual physicians to donate to the Community Research Bureau is worthy of support.

(5) The *Health Facilities Committee* has made strides especially in the Nursing Home area. Much needs to be done, however, and many changes will probably occur with new legislation.

The present committees and chairmen should continue.

Douglas B. Bell, II, M.D.

CONVENTION

HOUSE ACTION: Adopted with recommendation that the Finance Committee consult with the Convention Committee regarding annual meeting registration fees.

Annual Meeting: The first issue of business this year was to select sites and dates for future meetings of the Association to enable the committee to plan in advance. After careful study of various facilities, it was found that, through 1976, the Ilikai is the only place that can accommodate a conference such as planned by HMA. The following dates were selected and tentative reservations made at the Ilikai:

1974—May 6 through May 11

1975—April 28 through May 3

1976—April 26 through May 1

It is my understanding that a Resolution is being presented to the House of Delegates to change the annual meeting dates to November. Before any changes are made, a thorough study of other scheduled meetings of national or international interest should be made and tentative space reserved at a suitable hotel.

The theme "Acute Medical Emergencies" was especially chosen for this year's meeting because of the timeliness of the topic, postponing "Clinical Pharmacology and Therapeutics" for the 1974 meeting.

During the year, considerable discussion centered around the possibility of having an interim session. The committee feels that HMA lacks financial resources for an interim session at this time. The prime reason for an interim session was to present items of current national interest. As a compromise, a workshop in this year's meeting was designed to focus on a current issue—namely, "emergency medical services." Next year it is planned to enlarge the workshop concept with an effort to continue to bring in matters of national interest into the annual meeting.

AMA Clinical Session: The dates for the AMA Clinical Session in 1975 are November 30 through December 5, 1975. Sheraton-Waikiki will be the headquarters hotel, and Hilton Hawaiian Village will be the center for exhibits and scientific affairs.

Recommendations: That an interim session not be held until finances can be developed from other sources.

Arnold W. Siemsen, M.D.

MABEL SMYTH BOARD

HOUSE ACTION: Filed.

Representing the Hawaii Medical Association on the Mabel Smyth Board of Management for 1973 is Dr. Grover Batten and Dr. Elmer Johnson; representing the Hawaii Nurses' Association is Mrs. Althea Kamau and Miss Lucille Love; and

representing Queen's Medical Center is Mr. Alex Smith
There has been no report from the Site Committee regarding the expansion of the Mabel Smyth Building over the auditorium.

The total membership on the exchange is 354 M.D.s. The average number of calls was 24,254 per month with a total of 291,054 for the year.

Our financial position is sound; no bills outstanding. The auditor's report is on file and is available in the Director's office.

There will be a change in the directorship at the end of June. Mrs. Illa V.M. Storme has been with us for 21 years. As this goes to press a selection is being made from the many applications received.

Grover H. Batten, M.D.

SECRETARY

HOUSE ACTION: Adopted.

The total active membership of the Association as of December 31, 1972, was 863, an increase of 38 compared to December 31, 1971, which was 825. The inactive members numbered 24, a decrease of 2 from the previous year. Of the 863 active members, 78 were granted dues waiver, an increase of 8 over the previous year.

A total of 161 unlimited licenses were issued in 1972 compared to a total of 87 in 1971. Temporary and limited licenses were issued to 160 physicians compared to 204 in the previous year.

Eight members died in 1972: Robert Cole, Edward Wong, Alexander O. Haff, Walter Batchedler, Joseph Strode, Edward C. Wo Lum, Archie Orenstein and Archie Chun-Ming.

Unaffiliated physicians were reported by the counties as follows:

Hawaii-10, Honolulu-308, Maui-8, and Kauai (not reported)

By counties, the active membership was made up as follows: as of December 31, 1972:

COUNTY	ACTIVE DUES PAYING	ACTIVE DUES WAIVED	TOTAL
Hawaii	53	6	59
Honolulu	647	64	711
Maui	50	4	54
Kauai	35	4	39
	785	78	863

Since the last annual meeting, there have been 10 Council meetings that were held on June 2, August 11, September 1 and 22, October 13, December 15, 1972; January 5 and 26, February 16, and March 30, 1973. The officers also met twice a month. Actions taken at these meetings were approved by Council.

At the June 2nd meeting, officers of the Community Research Bureau were elected: B. Allen Richardson, President; Theodore T. Tomita, Vice President; O.D. Pinkerton, Secretary, and Grover H. Batten, Treasurer. HMA's portion of dues were refunded to the family of Dr. Edward Wong and AMA was contacted regarding a refund. Dr. Frissell was appointed as HMA's representative to the EMCRO Board. Health Career Day activities became a function of the Intraprofessional Liaison Committee. A proposal calling for the establishment of an Advisory Board of Consumers was rejected. Nominations to the Executive Committee of Emergency Medical Services were approved as follows: Herbert Chinn, chairman; Winfred Lee, Thomas Frissell, Wilbur Lummis and Masaichi Tasaka. The President was directed to appoint members to the State Joint Practice Committee. Honolulu County Revised Publicity Code and the present HMA Code were submitted to the other county societies for recommendations and changes. Action on the Charter and Bylaws of the Hawaii Association of Professions was deferred until the next Council meeting. HMA's delegate to AMA was instructed to support Resolution 31 on the floor

of the House. Condolences were conveyed to Mrs. Cutting on the passing of her husband, and HMA members were requested to send their personal contribution to the Windsor C. Cutting Lectureship Fund at the University of Hawaii. Permission to use fee survey statistics was granted to Dr. Winter.

Guidelines for project funds such as EMCRO were approved at the August 11th meeting. Policies regarding reimbursement of meeting expenses for inter-island and mainland travel were approved. The President's Assistant stipend was increased to \$1,000. Previous Council action regarding a dues refund was postponed until after the Constitutional Convention. Dr. Marcelino AVECILLA was appointed to serve a three-year term on the Finance Committee. Dr. George Mills was appointed to chair HMA's committee to negotiate the transfer of the Hawaii Foundation for Medical Care to HMA. The AMA Delegate presented a report on the AMA convention. A policy on requests for EMCRO information was adopted as follows: that background information on EMCRO, methodology of criteria development, and an invitation to visit EMCRO offices be used for distribution. A \$25 donation was approved for the American Association of Medical Assistants. Approval was given for an EMCRO project to study Quality of Care in ECFs, the Audit Committee and chairman to be selected by HMA officers. The theme for the 1973 annual meeting was changed to "Acute Medical Emergencies". The report of the Ad Hoc Committee on the AMA Study of HMA was accepted with congratulations to the committee. November 4 and 5, 1972 were set as the dates for the Constitutional Convention. A *Statement on School Health Functions*, which states that primary health care of the child is the parents' responsibility in conjunction with their private physician was approved. The "Warm Line" project and the booklet "Guide to the Perplexed" were endorsed. Funds for printing the Medicine Religion brochure "When Illness Comes..." were approved. The President's stand on the Kaiser-OEO project was reaffirmed, and Dr. Reppun's letter on this subject was sent to the Council on Medical Service. HMA officers were given authority to approve the final Tumor Registry contract and sign a contract with the Research Corporation. The Bylaws of the Association of Professions and the revised Publicity Code for Physicians were approved.

The entire meeting on September 1, 1972 was devoted to review of the report of the Ad Hoc Committee on the AMA Study of HMA and other bylaws recommendations. Approval was given for a \$200 donation to the Hawaii Chapter of SAMA. Drs. George Schnack and Cesar de Jesus were appointed as HMA representatives to the Hawaii Association of Professions. The HAMPAC Board was elected.

A special discussion on Health Maintenance Organizations was presented by representatives from the Maui Medical Group, HMSA, and Dr. Betty Anderson at the September 22, 1972 meeting. Approval was given on the Finance Committee's recommendations to (1) conduct a cost study of staff time on the Journal, (2) that an increase in the annual meeting registration fee for nonmembers be considered by the Convention Committee, as well as a study of fees charged in other states. Support was given for the candidacy of George H. Mills as a member of the AMA Board of Trustees. Dean Terence Rogers' request for HMA's suggestions regarding the establishment of a training for unlicensed physicians who failed the ECFMG examination was referred to the Health Manpower Committee.

At the October 13, 1972 meeting, special discussions were held on hospital affiliation agreements and new methods of health care delivery. It was voted to disseminate material from the HMA/Payne Study on the Quality of Care, accompanied by the HMA's critique, to recognized professional groups at the discretion of the officers. Dr. Levin's request to compare EMCRO physicians with nurses in their management of gout in a scientific paper was denied. The recommendation of the Ad Hoc Committee on the Foundation Transfer was approved.

At the December 15, 1972 meeting the Council agreed that no compensation be paid to delegates or councillors for any regular or special House of Delegates; to refund HMA dues to Dr. Edward Wong's estate; that certified audits be performed

At the budget meeting on March 30, the Council approved the Common Fund allocation of cost sharing on a 60 (HMA)-40 (HCMS) basis effective January 1, 1973 for a twelve-month period, to be reviewed again in August 1973. It was voted to recommend a membership assessment of \$27 to cover the budget deficit for 1973, collectable as of July 1, 1973, and delinquent after December 31, 1973. The 1974 budget was carefully reviewed and approved. Council concurred with the intent of two resolutions to be submitted by the Finance Committee which will permit the Council to establish the 1974 budget at a meeting in late October or early November and will change the time of the annual meeting beginning in 1974. The treasurer

R. Varian Sloan, M.D.

Health Manpower, chaired by Dr. H. H. Chun, has considered the rapidly expanding field of allied health personnel and their use and intergration into the medical care system. This has required review of existing legislation, drafting of new legislation and assistance in the passage of Senate Bill 883, which expands the Medical Practice Act to cover the appropriate use of these new allied health personnel. The chairman of this committee, with an extraordinary close relationship with the nursing profession, has stimulated consideration of the interrelationship of the medical and nursing profession in patient care, including new rules for nurses (as well as physicians) in patient care responsibility.

Fred I. Gilbert, Jr., M.D.

AMA Delegate	George H. Mills
Alternate AMA Delegate	Herbert Y.H. Chinn
Councillor from Hawaii.....	Verne L. Adams
Councillor from Maui	Sakae Uehara

- *Councillors from Oahu Douglas B. Bell II
 Roger Brault
 Danelo Canete
 Ann B. Catts
 Albert C.K. Chun-Hoon
 George Ewing
 John Kim
 Felix Lafferty
 Henry T. Oyama
 Patrick J. Walsh

All nominees have been contacted and have agreed to serve if elected.

William W.L. Dang, M.D.

HOUSE ACTION: Drs. Smith, Dang, Withers and Kim were appointed as tellers. There were no nominations from the floor. The results of the election were announced as follows:

- President-Elect Winfred Y. Lee
- Treasurer Grover H. Batten
- AMA Delegate George H. Mills
- Alternate AMA Delegate Herbert Y.H. Chinn
- Councillor from Maui Sakae Uehara

- Councillor from Hawaii..... Verne L. Adams
- Councillors from Oahu Ann B. Catts (2 years)
 Albert C.K. Chun-Hoon (2 years)
 Douglas B. Bell, II (1 year)
 Henry Oyama (1 year)
 Patrick J. Walsh (1 year)

The Nominating Committee was elected as follows: Ann B. Catts, Herbert Y.H. Chinn, Albert C.K. Chun-Hoon, John J. Lowrey, Henry Yokoyama (Honolulu); John Morris (Maui); Richard Lundborg (Hawaii); Peter Kim (Kauai).

* Five Councillors must be elected to complete a total requirement of eight councillors from Oahu who will be serving staggered terms. Presently, there are three incumbent councillors, two whose terms expire in 1975, and one whose term expires in 1974. From the five councillors to be elected, two shall serve 2-year terms, and three shall serve 1-year terms, the terms to be determined by the number of votes in descending order.

NEW BUSINESS

The President asked whether there was any new business. Dr. Chinn asked the House to join him in a standing ovation for President Iaconetti. The meeting adjourned at 5:15 p.m.

R. Varian Sloan, M.D.
 by Becky Kendro

AWARDS

Medical Journalism Awards

- PROFESSIONAL DIVISION:**
- 1st Prize: Gene Hunter
- 2nd Prize: Linda McCreery

Sportsmen's Awards

- TENNIS:**
- Yutaka K. Yoshida and Leabert R. Fernandez—Doubles Champions
- GOLF:**
- President's Trophy—William W. L. Dang (low-net)
- Robert M. Miyamoto Perpetual Trophy—William W. L. Dang
- John M. Felix Perpetual Trophy—Richard S. F. Lam
- George H. Mills Perpetual Trophy for Pharmaceutical Representatives: Roy Shimonishi

THE RIGHT ONE



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COUNCIL MEETING

Friday, March 30, 1973—5:00 P.M.
Mabel Smyth Lanai

CALL TO ORDER

The meeting was called to order by President William E. Iaconetti. Present were Drs. Herbert Y.H. Chinn, Thomas P. Frissell, R. Varian Sloan, Grover H. Batten, George Goto, J.I.F. Reppun, Douglas B. Bell II, Ann B. Catts, Henry Oyama, Winfred Y. Lee, Sakae Uehara, Peter Kim, William W.L. Dang, John Withers, DeWitt Smith, Rowlin Lichter, and Elisabeth K. Anderson plus Mrs. Pat Schnack, President of the Woman's Auxiliary.

MINUTES

The minutes of the February 16, 1973 meeting were approved as circulated.

REPORT OF THE WOMAN'S AUXILIARY

Mrs. Schnack briefly reported on the activities of the Woman's Auxiliary and noted that Mrs. Howard Liljestrand has been nominated as President-Elect of the AMA Woman's Auxiliary.

REPORT OF THE TREASURER AND FINANCE COMMITTEE

The Council reviewed the financial report for February and the report of the Finance Committee which will be presented to the House of Delegates. The following actions were taken:

ACTION:

- (1) The financial statement for February 1973 was approved subject to audit.
- (2) Approved the Common Fund allocation of cost sharing on a 60% (HMA)—40% (HCMS) basis effective January 1, 1973 for a twelve-month period to be reviewed again in August 1973.
- (3) Approved the recommendation to ask the House of Delegates to levy a membership assessment in the amount of \$27 to cover the deficit for 1973. Assessment to be collectable on July 1 and delinquent after December 31, 1973, and will be prorated for new members.
- (4) Approved the 1974 budget as presented.
- (5) Concurred with the intent of Resolution No. 1 which refers the final determination of the 1974 budget and dues to the Council who will meet for that purpose in October or November 1973.
- (6) Agreed with Resolution No. 2 which proposes a change in the date of future annual meetings from May to October or November.
- (7) Adopted policy, to be incorporated in the HMA Bylaws, which permits the Treasurer, with the approval of the Executive Committee or Council, to determine the annual meeting registration fee.
- (8) Agreed with recommendation to increase Special

membership dues to one-half of the dues paid by active members for 1974 (presently one-third).

- (9) Approved recommendation whereby the Council shall have the authority to approve unbudgeted expenditures not to exceed \$5,000 for 1974.
- (10) Agreed that in the event the House of Delegates will not give the Council authority to alter the dues structure at a later date, that the dues rate be increased by \$65.00 per member for 1974. However, if authority is given to the Council, then the increase may be a figure up to \$65.00 depending upon the existing financial status at that time.
- (11) Accepted the recommendation that action be temporarily deferred until it is economically feasible to proceed with an investment program.
- (12) Agreed that a letter be sent to contributors of the Physician's Benevolent Fund requesting their opinion with reference to the distribution or disposition of the PBF.

The Finance Committee also reported they were unable to recommend any funds other than PBF which might be employed for site or investment purposes at the present time.

REPORT OF THE COMMITTEES AND COMMISSIONS

A. *Peer Review Committee*—The following recommendations were approved:

ACTION:

- (1) That the county peer review committees report quarterly to the State Peer Review Committee of their general activities and the nature of the cases investigated for information and for the purpose of developing an educational program.
- (2) That no immediate change in the selection process for the Board of Medical Examiners be pursued and that a letter be sent to the Governor offering him the help of the Hawaii Medical Association with regard to the appointment of the members of the Board of Medical Examiners.
- (3) That the chairman of the Board of Medical Examiners be invited to meet with the HMA Council at least annually or more frequently upon the request of the HMA President.

The Council did not agree that neighbor island members of the Peer Review Committee be compensated for their attendance at meetings.

B. *EMCRO*—Dr. Iaconetti reported that the EMCRO-Phase II grant was not approved by the National Health Center and the project will terminate on May 31.

ADJOURNMENT

The meeting adjourned at 10:00 P.M.

R. VARIAN SLOAN, M.D., *Secretary*



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Core Textbook of Surgery

Edited by Richard H. Egdahl, M.D., 484 pp., \$13.50, Grune & Stratton, 1972.

THIS CONCISE, relatively inexpensive volume, as its name suggests, contains "core" surgical material. Developed out of student lecture outlines by the Boston University Surgical Service, it is not meant to be encyclopedic. Its aim is definitely toward the student, who should find this easy to encompass during his initial exposure to surgery. The basic pathophysiology of surgical disease and care is here without a welter of anatomic or technical details. Obviously, it should be used along with a major text in surgery and anatomy.

J. BRYSSON GREENWELL, JR., M.D.

Advances in Electrocardiography

Edited by Robert C. Schlant, M.D., and J. Willis Hurst, M.D., 464 pp., \$24.75, Grune & Stratton, 1972.

THIS BOOK was generated by a symposium held in May, 1971 at Emory University; in turn, the symposium was the result of a renewed interest, after a decade of status quo maintenance, in EKG. The new thrust was the result of the provocative effect of the CCU concept and clinical experience.

Many authors contributed to this book, which is appropriately divided into sections such as General Electrophysiology of the Heart, Pathophysiology of Conduction and of Abnormal Cardiac Rhythms, Pre-Excitation and the Wolff-Parkinson-White Syndrome, Hypertrophy and Infarction, and Miscellaneous Effects Upon the Electrocardiogram.

Because of the varied authorship and subject matter, there is wide variation—from article to article—of level of sophistication, interest, and clarity. Some articles could only be appreciated by the professors of electrophysiology, ensconced in academia; at the other end of the spectrum, there are articles of interest and education for the internist and clinical cardiologist.

The best example of the latter is the article by Borys Surawicz, M.D., on primary T-wave abnormalities. To my mind, this is the definitive monologue on this subject: up-to-date, clear, and with a bibliography of over 250 pages. Every internist, cardiologist, insurance and F.A.A., medical advisor should read it and have it as a reference.

Articles by Allen Scher, regarding EKG physiology, Rosenbaum's report of fascicular blocks, and Castellanos' articles on reciprocation, and WPW Syndrome, are all definitive and rewarding. Nancy Flowers' article regarding infarct without Q wave is also excellent as is Lipeschkin's handling of U wave mechanisms.

I took more time to review this book because of the great interest many of these articles generated, causing me to slow my reading to insure total comprehension and to forget frequently my charge as a critical reviewer.

EDWARD L. CHESNE, M.D.

Synopsis of Gynecology

By Daniel W. Beacham, M.D., and Woodward D. Beacham, M.D., 410 pp., \$10.90, C. V. Mosby, 1972.

THE WORD SYNOPSIS in the title of the book indicates that it is a concise general summary of gynecology.

This is a good book, written for medical students and physicians who need a general working knowledge of the subject, to round out their education to enable them to handle intelligently their patients with gynecological problems.

I agree with the authors that a standard textbook is better for detailed information.

K. S. TOM, M.D.

★Leprosy—Diagnosis and Management, 2d Ed.

By Harry L. Arnold, Jr., M.D., and Paul Fasal, M.D., 93 pp., \$14.75, Charles C. Thomas, 1973.

THIS IS THE SECOND edition of the best work on leprosy, in English, for the non-leprologist. In 87 pages of text, with 32 colored plates and 36 black and white figures, the subject is tautly covered.

Much has been learned about leprosy and its care in the 20 years since the first edition was published; and a second author has been added, the skilled dermatopathologist and leprologist, Paul Fasal. He brings valued contributions, especially on pathology and treatment.

Recognition of early evidences of leprosy should concern every practicing physician in Hawaii. For this the book is of special value. Chapters Three and Four (Epidemiology, and Natural Evolution of Leprosy) point out the need; Chapters Five and Six (Diagnosis, and Clinical Pattern) tell what to do.

Only a few errors are noted. Page 7 tells that leprosy was introduced into Netherlands New Guinea in 1960. The disease was well established by that date. On page 24 one reads, "see page 000." This should be pages 52-53.

Black and white figures are excellent and well chosen; no book could show all possible variations! Figures 8, 10, 13, 14, 17, 21, 23, and 24, and the illustrations of histopathology, are specially commended. Some colored plates are less clear, but most are excellent.

Two quotes from the preface to the second edition are pertinent:

"We are at the beginning of a new era in leprosy."

"Patients . . . may now more often than not remain in the hands of their primary care physician, or at least return to him after a short period of hospitalization."

NORMAN R. SLOAN, M.D.

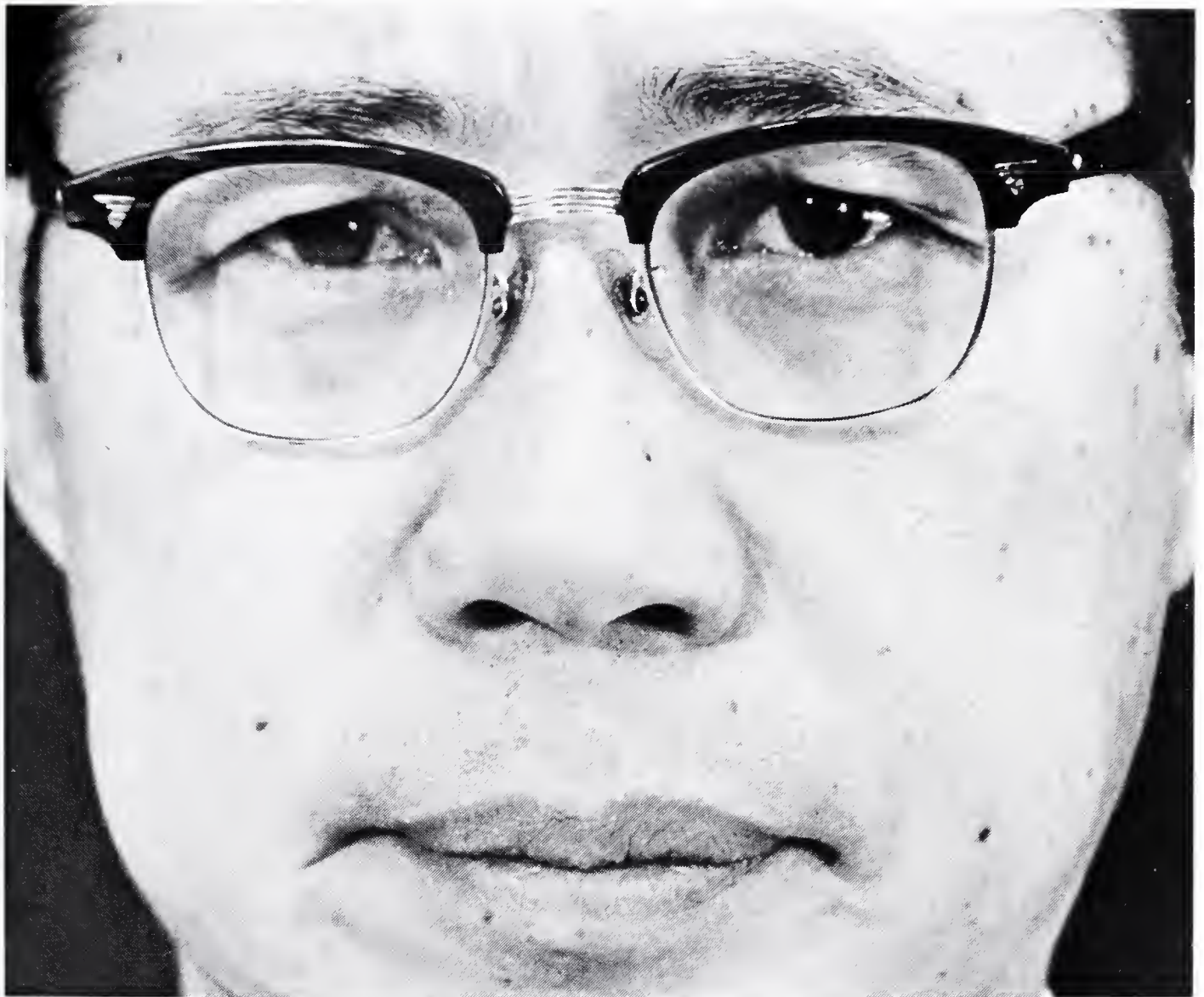
The Care of Minor Hand Injuries

By Adrian E. Flatt, M.A., M.D., 293 pp., \$21.50, C. V. Mosby Co., 1972.

IN THE PREFACE to this third edition of a valuable, basic, traumatic hand surgery book, Dr. Flatt has toyed with the idea of a name change away from the term "minor." In a way, I think this is unfortunate, since everyone familiar with so-called "minor" hand injuries fully realizes that what appears to be minor can in reality be complete disaster for a working man who uses his hands. Certainly, the word "minor" could have been exchanged for the word "common" or "ordinary" or "usual," to indicate to the reader that this is not an esoteric volume but one that deals with what any general practitioner, general surgeon, or orthopedic or plastic surgeon may see in his everyday practice.

Dr. Flatt has retained the general format of his two previous volumes, stressing in the first section the general principles of care. In the second section, he deals with specific types of injuries and takes a rather dogmatic approach to a specific problem. This textbook principle, I think, is to be commended, for it gives any surgeon a place to start from. Again, rather than being highly sophisticated and esoteric in this dogmatic approach, I feel he is very sound and basic, and most of the injuries each of us sees would be well handled if we followed the dogmatic, mandated treatment that he stresses for each injury.

DONALD JONES, M.D.



When business and professional duties take most of your time, how much care can you give your estate?

Your assets require constant management if they are to properly benefit you and your family. It means keeping a daily check on stocks, bonds, real estate and other financial trends. And having the time to take immediate action if a profit is to be made — or a loss avoided.

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Letter to the Editor

Doris Jasinski had a few thoughts: "To **Tom Kobashigawa**, former POW: Bless you for all you have suffered and endured during your imprisonment... Regarding 'Deep Throat'—even though this picture has been showing in Honolulu for some time, hundreds of thousands of your fellow Oahuans will never waste time seeing it or pictures like it. This is a matter of choice and a choice you can make as a free American. Nobody ordered you to see that film. Having heard what it was about, and noting it advertised as pornography, you could have chosen not to see it... You still have a right to be 'conservative.' Don't allow yourself to be stamped into accepting things in this society that your better nature tells you not to accept." (We wonder what prompted these sudden philosophical outbursts.)

Our *Journal* editor **Harry Arnold Jr.** was up in arms and said his piece: "One need not be a veterinarian to be offended by the tasteless diatribe, vilifying the entire veterinary profession because of an unfortunate incident or two, that appeared in *The Advertiser* (4/30)... And one need not be an editor to be aware that its acceptance for publication was an irresponsible, incompetent action—assuming that it was not a vindictive one... An apology to veterinarians is certainly in order, not from **Ms. Austin**, who is probably still too angry to offer one, but from the editor who caused her letter to be published... And while he's up, he might proffer one to the physicians and psychiatrists who were damned as a class by **Edwina Hart** in the letter immediately preceding, because 'they' (all, presumably) 'categorize (women) as neurotics and hypochondriacs.'" (The Veterinary Association sent its thanks.)

Physicians Speakers

John Lowrey discussed "Death With Dignity" in March as part of the "Completing the Cycle of Life" lecture series co-sponsored by the Funeral and Memorial Society of Hawaii and the First Unitarian Church of Honolulu... Plastic men **James Penoff** and **Victor Hay-Roe** spoke on "The Viable Woman" at a Junior League of Honolulu meeting in March... On Maui in April, during a public discussion on weight problems, **William James** spoke on "Bad Effects of Overweight on the Body—its Treatment," **Charles Stewart** on "The Psychology of Overeating—Psychotherapy," and **Jose Romero** on "The Surgical Treatment of Morbid Obesity."

Personal Glimpses...

Cora Au proudly informed us that hubby **Francis** had taken up organic gardening in earnest and that his latest achievement was a winter melon plant which bore 48 melons, the largest being a 56-pound colossus and two others of 45 lbs. apiece. **Francis Au's** secret formula is the compost which he personally prepares from chicken manure... "He does well in whatever he does," **Cora** said admiringly, but then added, "Of course he doesn't do anything else."

Cardiologist **Cool Wakai** was awakened at 2 one morning by a caller whose name was unfamiliar... "I don't recognize your name..." he admitted stuporously, "But are you my patient?" "No," came the honest reply, "I am one of **Dr. Yokoyama's** patients, but he is not to be disturbed until morning." Amazed and chagrined, **Cool** plumb forgot to find out what she had called about... He later complained to us, "Boy, you have your patients trained right."

Miscellany...

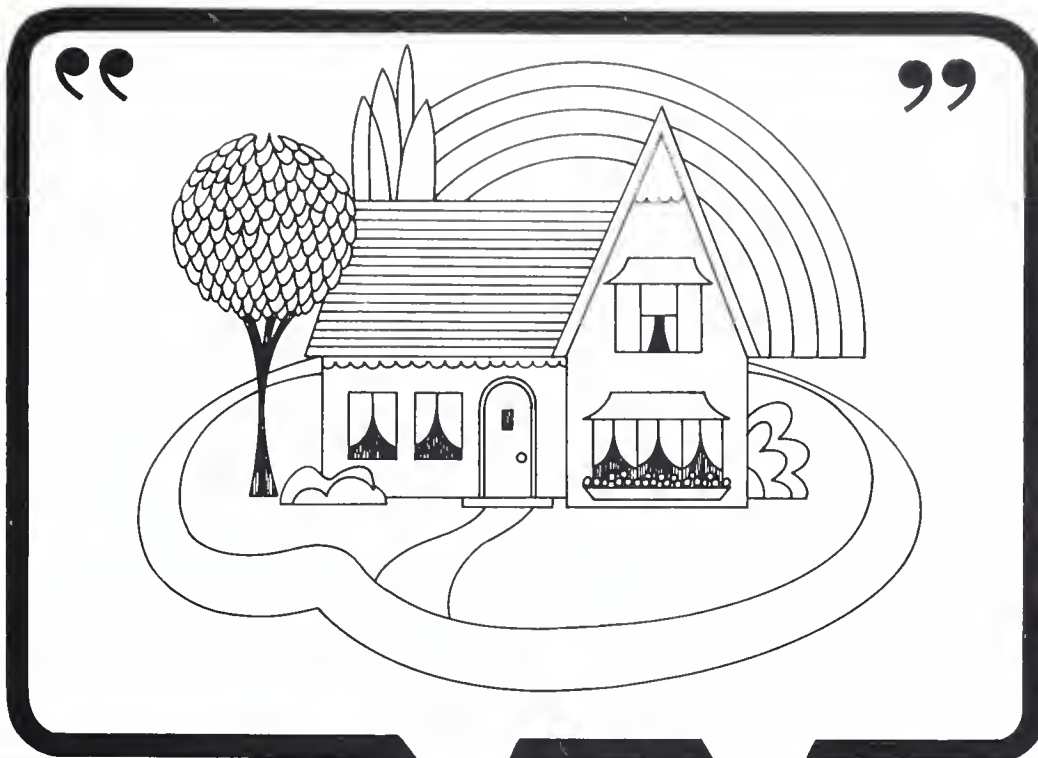
"What does sex have in common with Campbell Soup?" asked CCU nurse **Lovey Nabalta**... We confessed we didn't know... "Mmmmm Good!" came the reply...

HMA Golf Tournament

(Mid Pac CC May 4)

When the final tally was in, our grand slam winner, **Bill Dang** had done it again with a sparkling 87-20-67, to tie with **Jim Navin** who shot 82-15-67. The golf committee, however, decreed that **Jim**, whose HMA membership was still being processed was not yet an official member and therefore won in the Guest Flight while **Bill** was the official winner. We learned that **Bill** even threw one OB on the last hole, so confident was he of winning... In 2nd place was another perennial winner **Dick Lam** with an overall low gross of 79. In 3rd place was **Clarence Sakai** whose game jelled for a 83-15-68. **Lindy Chun** (who lives by the 18th hole) shot a net 69 for 4th place and **Ike Nadamoto** shot 83-13-70 for 5th. At net 71 were **Al Chun Hoon**, **Bill Morioka**, **K.S. Tom** and **Ed Kagihara**. **Al Chun Hoon** tied with **Dick Ho** for 2nd low gross at 82. At net 72 were **Henry Yim**, **Dick Ho**,

continued page 276



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Hawaii Heart Association



THE VI ASIAN-PACIFIC CONGRESS OF CARDIOLOGY

The VI Asian-Pacific Congress of Cardiology will be held in Honolulu October 3-8, 1976. The Hawaii Heart Association will be the host and the Sheraton-Waikiki will be the site of the venue.

We've tried since 1964 to have the quadrennial congress of the A-P Society in Hawaii. At the Congress in Singapore, 1972, we succeeded.

At this meeting, for the first time, the Hawaii Heart Association had two of the three delegates from the United States. The incumbent president of the HHA, Dr. Alfred Morris, and I were selected to be the delegates from Hawaii. The third was the President of the American Heart Association, Dr. J. Willis Hurst. We went to the House of Delegates meeting with some trepidation because we had heard several invitations were going to be extended for the VI Asian-Pacific Congress. Also, we realized that the image of the United States leaves something to be desired in most countries. As an example of what we were facing politically, there were two rumors going around that were diametrically opposite. One was that J. Willis Hurst, President of the AHA, was using all of the power that he could muster to see that Hawaii got the VI Congress. The other rumor that was rife was that J. Willis Hurst was doing everything that he could to see that Hawaii did NOT get the VI Asian-Pacific Congress. There was not a shred of truth in either rumor, of course.

Because of the political climate, Dr. Hurst elected to stay away from the House of Delegates meeting at the last moment, a decision which as it turned out was probably a wise one. Al Morris and I had our badges on which said "Hawaii," not "United States." The book which gives the list of registrants is always broken down into countries. The list of delegates from the United States of America is separate from waii. This actually stands us in very good stead politically. So many of the men from other countries have an intense dislike for the United States and, ergo, the America Heart Association, but they think of us in Hawaii as being with them in the Pacific basin so we are quite acceptable.

When the business of the House of Delegates got under way there was a certain amount of electricity in the air. When they came to the pre-

sentations and invitations for the next Cardiology Congress, Hawaii came first because of alphabetical order. In the meantime, Iran, after talking to us, had decided to withdraw in our favor and wait for another time. This left, Thailand, India, and Hawaii in the running. I made the presentation for Hawaii and pointed out that we had a multitude of cultures from which to draw. This helped make us a logical meeting place as the crossroads in the Pacific, physically as well as culturally. I extended the aloha of the Hawaii Heart Association, and since I had sent brochures and letters to all the component societies ahead of time, they were well aware of what we had to offer. A delegate from India tried to tear us to pieces by pointing out that Hawaii was a part of the United States and that the Asian-Pacific Congress should not be held in the United States. In addition, he pointed out that our culture consisted of a couple of hula girls in Waikiki, whereas they had a culture that extended back thousands of years. The delegate from Thailand made an excellent presentation, but when the votes were in we had won, 7-5-1.

This will be the first large cardiology congress in the State of Hawaii. The fact that it is international in scope will make it not only important but very exciting. There will be cardiologists from such places as Japan, Singapore, Hong Kong, Malaysia, Indonesia, Sri Lanka, Australia, New Zealand, Philippines, Israel, Lebanon, and many other countries. Invariably, physicians come from Europe, and of course from the mainland United States. It is a rather unique situation to have Hawaii in an area where we of the Hawaii Heart Association can belong to the Asian-Pacific Cardiology Society, thus making it possible for the American Heart Association to be a back-door member. In addition to the Asian-Pacific, the American Heart Association is involved in the Inter-American Cardiology Society and by a reverse situation the Hawaii Heart Association gets in the back door of that one. We are the only country involved in two of the three major cardiology society components.

The basic reason for these quadrennial meetings is to disseminate the knowledge and experience those of us who live in this Asian-Pacific basin have with diseases of the heart and circulatory system in general. The evolving countries as they become more "evolved" have an in-

continued page 291

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Notes and News continued from 272

Y. Fukushima, Dick Omura, and Bill Ito. At net 73 were Ross Hagino, Ralph Cloward, David Sakuda, Maurice Nicholson and Allan Young. At net 74 were Henry Fong, Nobu Nakasone, Paul Tamura, Mike Okihiro, Coolidge Wakai and at net 75, Manuel Abundo, Robert Ogawa and Jim Cherry. The prizes ran out at net 76, but in this group were Vic Mori, Joe Nishimoto, Wini Lee, Naomitsu Tajima, Wini Chang, Herman Mercado, Ed Matsuoka, John Morris, and Joe Lam. The following were the special awards winners: **Hideo Oshiro** for the longest drive on the treacherous 17th hole; **Homer Izumi** for being closest to the pin on the 14th; and **Clifford Chang** for hi gross. The trio of **Ray Wong, B. Realica and Bob Kim** tied for Hi Net honors... **Fred Lam, Jr.** won the Non-Handicappers Flight with a net 71.

The success of this tournament goes to the hard-working golf committee of Richard Ho, Arturo Salcedo, Catalino Cachero, Al Chun Hoon, Tom Kobara and Ed Kagihara and their co-chairmen Manuel Abundo and Joe Nishimoto.

At the Sportsman's Nite festivities held at Kanraku Tea House, the conversation centered around the new graphite shafts which had come into vogue. Bill Ito told how **Herb Takaki** who had turned age 72 recently was disdainful of the light graphite shaft because he preferred a "heavy head and a stiff shaft." Bill commented wryly, "He must be thinking of something else..." Wini Lee sitting across us looked directly at tournament winner Bill Dang as he commented on the fine art of winning tournaments... "The secret is to have a high handicap." As Hide returned to his seat with his prize for the longest drive, Cool Wakai asked enviously what the secret was... Hide replied unblushingly, "The secret is to lay-off the night before..."

HMA Fishing Derby

(April 29)

Andy Morgan, overall chairman of the sporting events, was having mike trouble... "Hey you guys! Quiet down!" he yelled over the din of clashing chop sticks and post tournament hilarity... When there was some semblance of quiet and he could be heard, Andy, who was also chairman of the fishing derby remarked, "We had to eat crow again... It was rough as hell... We had to crawl on our hands and knees to get the beer..." First prize, Mahi-Mahi, went to **Bob Weiner** for his 31-pounder and 2nd prize to **Francis Au** for a 26-pounder... First prize, Aku, went to **Harold Sexton** for a 2-pounder on a 20-lb. test while 2nd prize went to **Bob Weiner** again for a 2-pounder on a 50 lb. test. The "Most Fish" Trophy went to **Harold Sexton's** boat while **John Pierson**, et al each got a bottle of fine wine as consolation prize...

continued page 280

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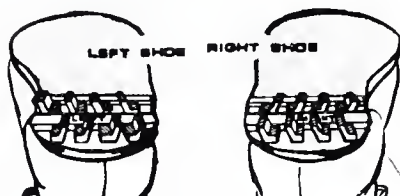
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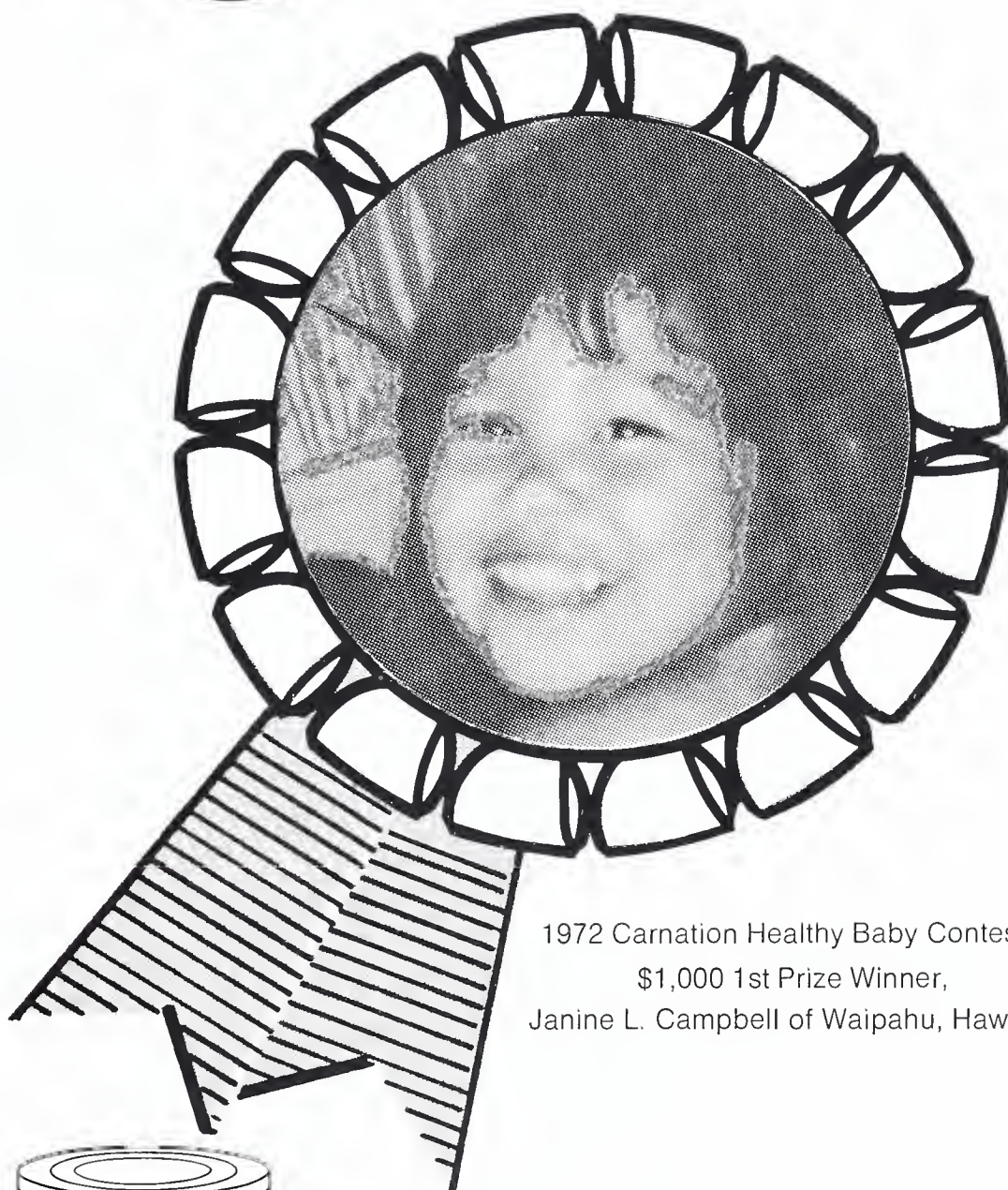
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HMA Tennis Tournament

Tournament chairman, **Leabert Fernandez** had arranged the tournament to be played over a 4- to 5-week period with the participants making their own arrangements for courts and times, thus eliminating the traditional quandary of past chairmen. But then, some of the camaraderie of trying to play off the tournament all on one Sunday morning with the attendant heat and sun strokes was lost...

Eighteen double teams were entered and each player received a free can of tennis balls and the winners split \$100 in trophies from the \$5 entry fee. At the Sportsman's Nite festivities, Leabert announced dolefully, "There were several upsets," but then the combo of **Fernandez-Yoshida** (with a combined age of 123) had won the trophy for the 6th or 7th consecutive year. He declared modestly, "They forget that each year we are older... **Dick Lam** and **Dick Omura** are coming out next year to retire us..." The Perennial Runner Up Trophy went to **Ben Tom** and **Charley Ching** while the team of **Tom Taira** and **Carl Lum** were dubbed the "Most Inspirational Team." The **H. Yokoyama-George Suzuki** team was "The Most Improved Team," the **Jordon Popper** team, "The Most Tenacious Team," and the **Nial Scully-Virgil Jobe** team "The Team With The Most Potential." **Gene Doo** and **Bruce Joseph**, "The Un-

luckiest Team." The Consolation Bracket was won by **Raj Mehta** and **Hau Vu** while **Shig Horio** and **Alex Roth** were in 2nd place.

Visiting Physicians

U of M's **Sidney Hoobler** was in town in March and **George Suzuki** asked him to lecture on his forte, "Hypertension." Sidney, a slightly greying version of the craggy featured athletic scholar we had for a professor nearly 20 years ago was the same brilliant, fascinating lecturer, and he spoke sans slides and prepared text for he was here on vacation. Herein are a few pearls:

"Hypertension is one of the few chronic diseases where treatment affects prognosis... Part of the treatment is patient education... The doctor usually is not strict enough... He must state, "If I start you on a drug, you will be on it the rest of your life..."

Re, criteria for treatment: "Treat all patients below age 40 or 50 with systolic greater than 160 and diastolic greater than 90. After age 50, treat all patients with BP greater than 170/100. With the very old, no treatment is indicated unless symptoms are present."

Re, Inderal (Propranolol) for hypertension: "So harmless and effective that we give anyway... Contradicted in borderline CHF and asthma... Well tolerated and no potassium loss or loss of potency... It may be the coming mode of therapy... In Eng-

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PATIENT'S COMPLAINT Suture of laceration		DATE OF EXAM 7/4	NAME OF HOSPITAL
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land it is the first mode of therapy and thiazides 2nd... It is synergistic with thiazide, so 85 to 90% of patients with hypertension can be treated with the combination of propranolol and thiazide... Watch for excess bradycardia and asthma... The effect is an average 23/15 drop in blood pressure... Initial dosage is 20 mg qid for 2 weeks, then 40 mg qid for 2 weeks... Enthusiastic users go up to 80 to 160 mg qid."

Re, CVA and hypertension Rx: "After a vascular accident, the treatment of hypertension does not prevent recurrence, but the patients treated are better off with less CHF and other morbidity... It is not dangerous to lower the blood pressure in stroke patients..."

Re, Oral contraceptives: "3 to 5% of the population may have an insidious rise in blood pressure in 2 or 3 years..."

John Ultmann, prof of medicine and oncology at the U of Chicago Med School was the visiting oncology lecturer in early March this year. John, a medium statured, Mediterranean type with long wavy hair which did not detract from the quality of his talks, combined humor with clear precise language for an effective comprehensible lecture series. We were unable to take notes on his "Endocrine Manifestations of Non-endocrine tumors," because of the darkened lecture rooms and postprandial somnolence, but we picked up the following at the Queen's lecture of Breast Ca.

"The American Cancer Society and the National Cancer Institute are launching a major screening program using xerography, thermography and palpation." "Breast Cancer if not cured is a systemic disease." "The fundamental factors involved in hormonal therapy for breast Ca include: scientific criteria of hormonal responsiveness viz hormonal activity, hormonal sensitivity, and hormonal environment; clinical criteria of hormone response; and finally, biological determinants of hormone response."

"The rationale for prophylactic castration is not a rational one... The total life span with or without prophylactic castration is no different."

John Ultmann was followed by a John Haywood at the Queen's lecture. This John, a rotund, pink cheeked, frontal alopecic professorial type with a British accent was a beautiful speaker. "Dr. Ultmann has referred with subdued excitement to what will come out in the next decade... i.e., the measurement of patient response to hormones... Presently, we have no good criteria... We say, either 'that looks good or that looks bad'... Prophylactic castration is out, but with one rider... i.e., prophylactic irradiation to the ovaries... We have a study on the steroid profiles of 900 patients in our series which show that low androgen level patients with prophylactic castration have shorter survival and that high an-

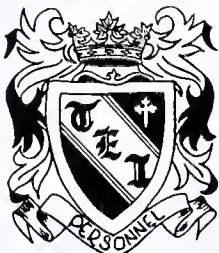
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Notes and News continued from 282

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Conference Notes . . .

EMCRO's **Max Botticelli** reported on GU infections at a recent Queen's Quality of Care Conference and emphasized the need for repeat cultures and adequate therapy: "Urinary tract infections are the second most frequent infections that physicians see."

"Only 47% of patients had repeat urine cultures. **Richard Frankel** says all patients should have repeat cultures."

"Thirteen of 45 patients left the hospital with infected urines . . . Seven left with antibiotics not effective and 6 left without antibiotics."

Oncology Conference Dialogue . . .

The case was an 80-year old with penile Ca . . . Urologist **Masaru Koike** commented that penile Ca is related to circumcision . . . Pathologist **Grant Stemmerman** added, "To prevent penile Ca, circumcision should be done in infancy." Whereupon moderator **Noboru Oishi** punned, "What is the cut off period?"

A 50-year old Filipino male with reticulum cell sarcoma treated previously with prednisone, Vincristine, and Cytosan was readmitted with bilateral pneumonitis and ascites. Chemotherapist **Quint Uy** looked toward radiotherapist **Ed Quinlan** for help and Ed cringed visibly: "We can't radiate the whole body," Ed lamented. Fellow radiotherapist **Sidney Kadish** was more dogmatic: "Johnson's doing whole body radiation." When Grant Stemmerman added, "It's either lymphoblastic lymphoma or reticulum cell sarcoma," Sid asked, "I thought the big blast was that lymphomas were classified as" Stemmy retorted with a picturesque simile: "That's what you hear cresting on shore, but the cresting waves coming in off shore say otherwise . . ." Quint Uy suggested weakly, "We can give COAP or MOPP." But then Sid Kadish insisted: "Reticulum cell sarcoma is particularly curable with radiation."

A 73-year old Japanese man with papillary Ca of the thyroid who had post-op radiation for an unresectable lesion, now had a recurrent mass of his

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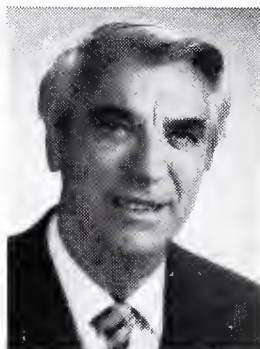
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neck. Stemmy: "We have only one case of death in our hospital files of papillary Ca of the thyroid and only 3 or 4 with lung metastases... It is a comparatively benign neoplasm..." Radiotherapist Carl Boyer wondered aloud if this could be sarcoma caused by the radiation. Stemmy tried to counter this train of thought: "The incubation period following thoratrast is 12 years for sarcoma." Moderator Noboru Oishi also reiterated innocently: "It could be radiation induced sarcoma."

A 76-year old Japanese man with a 6-month old fungating epidermoid Ca of his entire lower lip and chin attributed the condition to a nick while shaving. Surgeon Bob Oishi complained, "The patient saw a physician 2 months later with the entire lower lip involved, but we couldn't even get a biopsy. Instead he went to see some kind of healer." Carl Boyer was buoyant with enthusiasm: "This is the kind you see in text books with tremendous results... Of course he will end up with a hole in his face..." Noboru Oishi asked, "What order of treatment would you consider?" Radiotherapist Ed Quinlan who would be doing the therapy was less enthused and smirked: "What other modes of therapy are there? I would like to share my triumph." Chemotherapist Paul Condit recommended, "How about trying methotrexate or bleomycin after X-ray therapy?" But Carl was firm in his convictions, "I have no delusions that

X-ray therapy alone will cure." Plastic surgeon Tom Taira commented, "My feeling is to excise the lesion and do a chest flap... The thing is to do it now... I would hate to tackle it after radiotherapy." Carl was adamant and his moustache bristled, "I can almost get emotional about this... We are not talking about a cure... We are offering relief, i.e. reduced morbidity." Tom objected: "I'd still hate to tackle it after radiotherapy. If the flap doesn't latch on, it's going to be flapping about forever." General Surgeon George Nip nipped the argument: "I had a 91-year old man with a similar lesion... A man of 91 is a loose piece of pathology... We gave him a trial of radiotherapy and in 6 months, it was all gone."

A 76-year old Portuguese man with Ca of the oropharynx was presented. Radio therapist Ed Quinlan reported that Tripler records show that he had a Rt radical neck in 1966 and had received 4000 rads to both necks. He now had recurrence of a Lt tonsillar tumor which may be a new primary... Quint Uy asked, "Does he smoke?" Grant Stemmerman added, "We should have a smoking history, viz the number of packs and till when." ENT man Hideo Oshiro offered, "Equally important is how much he drinks. Smoking and drinking go hand in hand." Ed, ignoring the etiological factors involved, simply stated, "The plan is to cure with radiation."

A 69-year old Japanese man with metastatic Ca of



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the pancreas was described by Quint Uy as "a poor risk with poor nutrition and emphysema." **Sid Kadish** stated, "You can offer pain relief with radiation, but I'm not saying enthusiastically." Grant Stemmerman was equally unenthusiased: "I don't think any tumor is as bad as a pancreatic Ca. There is no mode of therapy available now or will be in the future." Moderator Noboru Oishi remarked, "It's comparable to stomach carcinoma according to the literature." Stemmy was inconsolable and moaned, "Well, the literature's wrong... It's a terrible tumor." Surgeon Bob Oishi suggested weakly, "You might try a coeliac ganglion block with absolute alcohol for relief of pain..."

Roy Tanoue's 59-year old Japanese woman with gastric Ca had a partial resection 4 years ago and had done surprisingly well, but was now admitted with painful subcutaneous lesions. Moderator Noboru Oishi was philosophical: "There's a message here, but I don't know what it is." Pathologist Grant Stemmerman commented, "Comparison of intestinal Ca shows that there is twice as good a survival for the female contrasted with the male in orientals... California data on Chinese shows this... There is a difference in the handling of progesterone and androgen in the oriental... I suggest that progesterone be added... It is relatively innocuous." To add confusion to confusion, chemotherapist Paul Condit suggested

radiotherapy. And radiotherapist Sidney Kadish suggested chemotherapy i.e., 5 FU with the progesterone. Stemmy reported, "I saw one case of reappearance 11 years later in the line of incision... I would do the minimum." Roy complained glumly, "I have to give her an answer today." Radiotherapist Ed Quinlan suggested, "Wait a month and if pain recurs, give her a superficial dose." Stemmy quickly added, "Which is painful." Ed retorted, "You can replace pain with pain." Moderator Noboru Oishi turned to Roy, "OK Roy?" But it was not OK with Roy... "I still don't know what you want me to do," Roy moaned...

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Announcements

"The Effects of Alcohol on the Nervous System" by Maurice Victor MD, Chief of Neurology Service, Cleveland Metropolitan General Hospital and Professor of Neurology, Case Western University School of Medicine, on Saturday, Sept. 9, 1972, 8:00 to 9:30 a.m. in Kam Auditorium at Queen's Medical Center.

EMERGENCY CARE

An advanced practical course on "Emergency Care and Transportation of the Sick and Injured." Sponsored by the American Academy of Orthopaedic Surgeons to be held September 13 through 15 at the University of California, San Francisco. For additional information write: Emergency Care Course, c/o Continuing Educa-

continued page 290

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1903-1973

Henry Costill Gotshalk, born February 17, 1903 in Trenton, New Jersey, was my good friend. We played golf twice a week for 25 years. I never knew him to cheat or take unfair advantage. We scaled Mauna Kea together. I went to hunt; he went to commune with nature. He couldn't knowingly hurt any creature. I hunted for pheasants and he was my retriever. We shot at clay pigeons and he was surprisingly adept. We played golf at the Volcano course. After a week, we ended our matches all even. We watched the volcano spouting molten lava and he was entranced. He loved the island of Hawaii.

For thirty years he cared for the inmates of Lunalilo Home. He had great empathy for the Hawaiian people.

He attended Trenton High School and then Ursinus for his bachelor's degree. He taught, and was an athletic coach before going on to medical school. He played football, basketball, baseball, and tennis, and was a swimmer; and through life he maintained a great interest in sports. After teaching he went to the University of Pennsylvania Medical School.

He interned at Blockley and then he came to the Queen's Hospital at the insistence of his friend and classmate, Paul Wiig. He was the first medical resident at Queen's, under Dr. Nils P. Larsen, and finished in 1931. He was greatly interested in cardiology and pulmonary function. He practiced in Honolulu continuously

from 1932 to 1972, and was one of the first specialists in internal medicine in Hawaii. For many years he was on the medical staff at Queen's Hospital, and for several years was chief of the medical staff. He served with enthusiasm and did great credit to himself and Queen's Hospital. For at least thirty years he was the expert on electrocardiography at Queen's. He ran the department and bought new equipment out of his own funds. He was an American Board certified specialist in internal medicine, a fellow of the American College of Physicians, a member of the AMA, and was a past president of the Honolulu County Medical Society. He was appointed to the Board of Health by Governor Poindexter and served through Governor Quinn's term of office. He also served on the Medical Examination Board for many years, and was on many committees of the county, territorial, and state medical societies. He was a member of Phi Chi and the Masonic Lodge, a Shriner, and a member of Aloha Temple.

His wife, Amy, survives him as do his son, William, and daughter, Marion. He passed away on April 12 at his home.

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Futility and frustration beset the physician confronted with breast cancer. For the last 35 years, the survival rate has not significantly changed despite intensive educational programs aimed at earlier detection, and improvement in treatment techniques.

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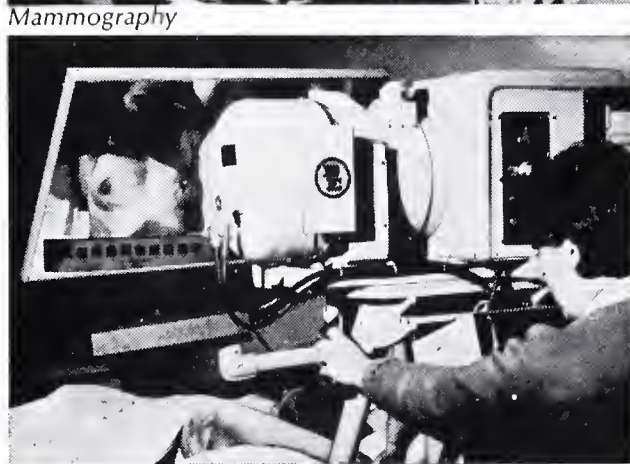
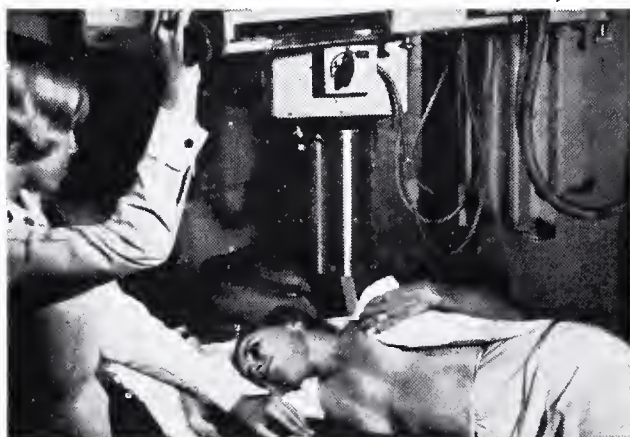
And we *do* have the means to achieve earlier diagnosis. We do have an *earlier* warning system. Mammography and thermography can detect breast cancer *before* a lump is discernible by palpation. To demonstrate that it is practical and feasible to detect breast cancer earlier by using these modalities, the American Cancer Society and the National Cancer Institute are funding a network of breast cancer demonstration projects. Supported by grants of \$2-million from

the ACS and \$4-million from the NCI, 20 such centers are expected to be operative across the country by the end of the year. Each will screen at no charge, approximately 5,000 women annually, in what is considered to be the ideal detection program—to include clinical examination, mammography and ther-

mography. Each of these detection methods contributes independently to the detection of breast cancer, and none can be dispensed with in the search for early disease.

At present we cannot prevent breast cancer, but the potential for saving more lives is immense. The five-year survival rate surges dramatically from 53% when axillary nodes are positive, to approximately 85% when the disease is localized, to nearly 100% for in-situ cancer.

We have an earlier warning system. Let's use it.



american cancer society

Announcements continued from 287

tion in Health Sciences, 570-U, University of California, 3rd and Parnassus Avenues, S.F., Calif. 94122.

POSTGRADUATE COURSES

Sponsored by the American College of Physicians, 4200 Pine Street, Philadelphia, Pa. 19104. Please write direct for additional information.

Sept. 12-14, 1973

DIAGNOSIS AND MANAGEMENT OF INFECTIOUS DISEASES, Howard University College of Medicine, Washington, D.C.

Sept. 17-21, 1973

ADVANCES IN INTERNAL MEDICINE, University of California, San Francisco, Calif.

Sept. 19-21, 1973

CLINICAL HEMATOLOGY FOR THE INTERNIST, PATHOPHYSIOLOGY DIAGNOSIS & TREATMENT, Mayo Clinic, Rochester, Minn.

Sept. 19-21, 1973

MECHANISMS OF HORMONE ACTION, Vanderbilt University School of Medicine, Nashville, Tenn.

Oct. 10-12, 1973

MEDICAL ASPECTS OF DRUG ADDICTION, College of Physicians & Surgeons of Columbia University, New York, N.Y.

Oct. 10-12, 1973

PHYSIOLOGICAL APPROACH TO MANAGEMENT OF VALVULAR & ISCHEMIC HEART DISEASE, University of California Center for the Health Sciences, Los Angeles, Calif.

Oct. 15-19, 1973

RENAL, ELECTROLYTE & ACID BASE DISORDERS, Tufts University School of Medicine, New England Medical Center Hospital, Boston, Mass.

Oct. 22-24, 1973

INDIVIDUALIZATION OF DRUG THERAPY, Temple University Health Sciences Center, Philadelphia, Pa.

Oct. 22-26, 1973

OFFICE PSYCHIATRY FOR INTERNISTS, Faulkner Hospital, Jamaica Plain, Mass.

Oct. 29-Nov. 2, 1973

CLINICAL RHEUMATOLOGY: THE DIAGNOSIS & TREATMENT OF ARTHRITIS & RELATED DISEASES, University of Arizona College of Medicine, Tucson, Ariz.

Oct. 29-Nov. 2, 1973

DECISION MAKING IN INTERNAL MEDICINE, Medical College of Georgia, Augusta, Ga.

Nov. 2-4, 1973

MANAGEMENT OF THE CRITICALLY ILL PATIENT, University of Southern California School of Medicine, Los Angeles, Calif.

Nov. 12-14, 1973

PULMONARY DISEASE: CLINICAL, IMMUNOLOGICAL AND PATHOLOGICAL CORRELATIONS, Mayo Clinic, Rochester, Minn.

Nov. 12-15, 1973

ADVANCES IN CLINICAL CANCER, University of California, San Francisco, Calif.

Nov. 14-16, 1973

HYPERTENSION: CURRENT TRENDS, Cornell Medical Center—New York Hospital, New York, N.Y.

Nov. 28-30, 1973

HUMAN HYPERSENSITIVITY DISORDERS: CLINICAL ASPECTS & PATHOGENETIC MECHANISMS, University of Michigan Medical Center, Ann Arbor, Mich.

Dec. 5-7, 1973

CURRENT CONCEPTS OF CLINICAL INFECTIOUS DISEASES, University of Virginia School of Medicine, Charlottesville, Va.

Jan. 7-11, 1974

WORKSHOPS IN THE PHYSIOLOGY, DIAGNOSIS AND TREATMENT OF ELECTROLYTE AND ACID BASE DISORDERS, University of Pennsylvania School of Medicine, Philadelphia, Pa.

Jan. 9-12, 1974

INFECTIOUS DISEASES: NEW DEVELOPMENTS, University of California, San Diego, Calif.

Jan. 21-23, 1974

CLINICAL APPLICATION OF RECENT ADVANCES IN MEDICINE, Oschner Medical Clinic, New Orleans, La.

Jan. 21-25, 1974

HEMATOLOGY-1974, University of Miami School of Medicine, Miami, Fla.

Feb. 27-Mar. 1, 1974

CARDIOLOGIC PERSPECTIVES FOR THE INTERNIST: 1974, Baylor College of Medicine, Houston, Tex.

Mar. 4-7, 1974

THE PHYSIOLOGICAL BASIS FOR CLINICAL DISEASE, University of Texas, Southwestern Medical School, Dallas, Tex.

Mar. 11-15, 1974

CURRENT CONCEPTS IN DIAGNOSIS AND MANAGEMENT OF RENAL DISEASE, Cornell Medical Center, New York, N.Y.

Mar. 18-21, 1974

RHEUMATIC DISEASES: PATHOGENESIS, DIAGNOSIS AND TREATMENT, University of Michigan Medical Center, Ann Arbor, Mich.

Mar. 21-23, 1974

HEMATOLOGY AND ONCOLOGY, Duke University Medical Center, Durham, N.C.

Mar. 25-29, 1974

CRITICAL CARE MEDICINE, University of Oklahoma Health Sciences Center, Oklahoma City, Okla.

Apr. 15-19, 1974

CLINICAL ENDOCRINOLOGY: RECENT ADVANCES IN DIAGNOSIS AND TREATMENT, Mayo Clinic, Rochester, Minn.

Apr. 17-19, 1974

AN ELECTROPHYSIOLOGICAL APPROACH TO THE DIAGNOSIS AND TREATMENT OF CARDIAC ARRHYTHMIAS, University of Pennsylvania School of Medicine, Philadelphia, Pa.

Apr. 24-26, 1974

PRESENT PRACTICE AND NEW DEVELOPMENTS IN NUCLEAR MEDICINE, University of California, Berkeley, Calif.

Apr. 24-26, 1974

COMPUTERS IN PATIENT CARE, Harvard Medical School—Massachusetts General Hospital, Boston, Mass.

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May 13-16, 1974

**INTEGRATED THEORY AND PRACTICE IN
ADULT HEART DISEASE**, Harvard Medical School,
Boston, Mass.

May 20-24, 1974

PROGRESS IN INTERNAL MEDICINE, University
of Pittsburgh Medical Center, Pittsburgh, Pa.

May 27-31, 1974

PRACTICAL THERAPEUTICS FOR 1974, Univer-
sity of Kentucky, Lexington, Ky.

Hawaii Heart Ass'n continued from 274

creased death rate from diseases of the heart and circulatory system. These diseases are now responsible for the majority of deaths in the Asian-Pacific area. Not too many years ago malnutrition, tuberculosis, and other infectious diseases led the parade of death by far.

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Chairman, Organizing
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PSRO (Public Law 92-603)

Like most physicians in practice, we were too busy to pay much attention to all the hollering about peer review and PSRO, but suddenly we find ourselves smack in the middle of it... As Foundation President **Wini Lee** puts it: Gentlemen, Congress passed the law, and like it or not, it is the law of the land... **Harry Schwartz** says, "This is ignorant intervention." So we have tried herein to summarize what it's all about in a nutshell:

1. The 1972 amendments to the Social Security Law provide for the creation of Professional Standards Review Organizations (PSRO's).

2. The Secretary of HEW will designate PSRO geographic areas no later than Jan. 1, 1974. (HMA through its subsidiary, the Hawaii Foundation for Medical Care has applied for designation as the PSRO for Hawaii... As far as anyone knows, there is no other existing local organization which qualifies since a PSRO must be a nonprofit, professional association representing a substantial proportion of the practicing physicians in the area... Each PSRO must have a minimum of 300 and a maximum of 2,500 physicians, so Hawaii with its 800 physicians can only qualify for one PSRO.)

3. The PSRO will provide physician evaluation of appropriateness of patient care in institutions. It will provide preadmission evaluation and appropriateness of care and length of care evaluation in the hospital.

4. The law deals solely with institutional care, not ambulatory care, but the individual PSRO may later get involved in ambulatory care...

5. The law deals only with Medicare and Medicaid at this time.

6. The PSRO's will not deal with fees or charges.

7. The law states that if a practicing physician organization with a potential for developing a PSRO does not come forth by Jan. 1, 1976, then the HEW secretary can designate some other physician organization, e.g., a medical school, a health department, an insurance company, or any alternative group with physician capability.

8. The National PSRO Council will contact state medical societies, state osteopathic societies, hospital associations and other groups in each state.

9. State PSRO's will provide data information, computer capacity and help with the establishment of standards, criteria, and norms.

10. Local PSRO's will be operated by local physicians; the norms of care will be developed locally by local physicians; and they will judge whether or not a fellow physician has met the criteria that was locally established.

11. Hospitals with good utilization review procedures may not have to change anything under the PSRO. (Hawaii is ahead of the game because of its unique experience with the Payne and EMCRO studies and all that would be required would be uniformity.)

12. Fiscal agents are required to abide by the PSRO's determinations as to medical necessity and appropriateness of services in paying Medicare and

Medicaid claims. (The physician run PSRO can prevent retroactive denials by providing appropriate guidelines, and preadmission and on site evaluations.)

As Lawyers See Us

During a Monday noon conference at KCH we listened to **Wally Fujiyama**, president of the Hawaii Bar Association as he gave the lawyer's view on malpractice suits. "Know thine enemy" it is said, so... herein are a few quotes:

"80% of all malpractice suits end up in favor of the physician."... "Most cases are no one's fault."... "Not enough doctors take time to explain that there is no guarantee of a procedure."... "The high risk patients are: a. Relatives of physicians and paramedical professionals, b. Relatives of young lawyers."... "The basic cause of most malpractice suits is the failure of the doctor to communicate with the patient."... "In a nut shell, you doctors make the problem and the patient comes to see us."... "How to protect yourselves: Keep accurate records; spend time with an exhaustive history; get a description of the ailment and quote it; get objective and subjective complaints; use the term 'impression' rather than 'diagnosis'; record medication and recommended procedures..." "Doctors are like lawyers—too damn busy."... "Basic precepts in acceptance of a patient: The law does not require you to volunteer, but once you enter a doctor-patient relationship, you have to leave the patient in good hands."... "The order of malpractice suits: orthopedics, then neurosurgery, and now on the mainland, anesthesia is the coming thing."... "I understand—all good lawyers understand—we try—we all make mistakes—Even good lawyers do... *But we cover our mistakes.*"... "What to do when faced with a malpractice suit: "My honest answer is 'Go see a good lawyer! Get someone who knows some medicine and knows you.'" "Don't fool around with the records... Don't get frightened by a bad result... Have it backed up with notes..."... "You know what 'TOFU' is... Well, that's what happens to a doctor's spine when he has to go to court... especially in testifying for a fellow physician."

Gobbleygook

At yet another Friday morning conference, Chief resident **Steve Grubb** discussed the use of penicillin and IV chloromycetin as the treatment of choice for bacteriodes... and pointed out that the tetracyclines were ineffective. Medical director **Jim Orbison** commented enigmatically, "It is interesting that at one time, penicillin and chloromycetin were regarded as the 'antithesis of synergism'." Steve was prompted to clarify, "In other words, antagonistic."

The case presented at a Kuakini Surgical Conference was that of a 49-year-old woman with subarachnoid hemorrhage who had bilateral carotid arteriograms and a left vertebral arteriogram. She developed a left hemiparesis. Pathologist **Grant Stemmerman** commented: "There was an autopsy case 2 or 3 months ago with acute dissection of the vessel needed

alter carotid angiogram... If this is a complication of carotid arteriography, then it is the second case in the past month." Radiologist **Don Ikeda** commented, "In lots of places, selective catheter insertion is considered safer... There is also pain on needling the carotid artery..." Surgeon **Walter Chang** added, "I've been called in on several cases with tears... Direct carotid arteriogram is out... Selective carotid arteriography is preferred..."

Anecdotes

Bill and Bob, two midwest doctors, returning from a duck hunting trip in the south had car trouble and were forced to spend the night at an elegant old plantation home of a handsome young widow... The widow put them up for the night, provided a sumptuous supper with after dinner brandy... Next day, they found their car repaired as promised and they thanked the widow and went their way. Nine months later, Bill called Bob, "Say Bob, do you remember the night we spent at the widow's home?" "Yes?" replied Bob cautiously... "Did you by any chance visit her after we had gone to bed?" "Yes," "Did you by any chance use my name?" "Yes, Bill, but I hope I didn't get you into any sort of trouble?" "No, Bob, I just learned that she had died and left me her entire estate." (A **Bill Dang** anecdote)

An attractive blonde was having aches and pains which doctors could not cure. So she sought the help of a local acupuncturist who unknown to her, had a sordid reputation... She was instructed to disrobe completely and the acupuncturist did likewise and started his "therapy." After a few minutes, she asked incredulously, "Are you sure this is acupuncture?" (A **Catalino Cachero** anecdote)

Oncology Conference Dialogue

A 75-year-old Japanese man with a reputed 2-month history of hoarseness was found to have CA of the posterior cricoid and was given 7000 rads postoperatively... This was back in December. Now he was readmitted with a recurrent hypopharyngeal tumor and a Rt lung mass. The attending ENT man, **Hideo Oshiro**, who has hitherto crusaded vigorously against smoking like fellow ENT man **Lup Pang**, was now crusading against drinking with equal vehemence... "This man has consumed a half to one quart of whiskey daily all his life... These patients come in notoriously late because anyone drinking heavily usually has a sore throat anyway... I've had three such patients now and they all drank and smoked heavily... One patient consumed 1 gallon of wine every day and still denied that he was an alcoholic... When we stopped his drinking, he had the DT's..." (This reminds me of the definition of an alcoholic: "Anyone drinking more than his doctor") (And Hide, we may add, has stopped his 19th Hole gin and tonic...) After this tirade, Grant Stemmerman added sagely, "At this point in life, he should not be urged to stop drinking..." Radiotherapist Ed Quinlan could care less about the patient's drinking habits and bemoaned: "These hypopharyngeal tumors are the worst ever..."

An 85-year-old Japanese woman had a Rt supraclavicular node biopsy in 1970 which revealed metastatic CA, primary unknown. She had radiation therapy to her lung and extrapleural areas for asymptomatic metastatic lesions. She was now admitted with recurrent tumors and a repeat IVP finally revealed a Lt renal tumor. She was explored and had a Lt nephrectomy and splenectomy for a transitional cell CA. The patient was completely asymptomatic before surgery and was now doing equally well postoperatively... Stemmy added, philosophically, "This is a classic example of how remarkably well these patients do when left alone..."

A 30-year-old woman with a 6-month history of intermittent diarrhea, abdominal pain and weight loss was found to have a constricting lesion of the transverse colon with metastatic nodes. Stemmy: "This is a case of clinically unrecognized CA and it is already Duke's Type C... The asymptomatic case is not necessarily an early case... Moderator **Quint Uy** turned to **Benjamin Gordon**, newly appointed KMRI director and immunologist, "Can the CEA test be used as a screening test?" Ben clarified, "If the test shows a high level, then either you're in trouble or pregnant... A high level does not necessarily mean adenocarcinoma of the colon for it can be other forms of cancer as well... A level above 20 warrants a careful search for a neoplastic lesion..." Surgeon **Roy Iritani** added, "With some nodes involved, I thought of giving one course of 5 FU and then waiting until symptoms develop." The chemotherapists objected... **Paul Condit** pointed out, "We can go round and round on this... But if you start now, you are committed to a long term course..." Quint Uy agreed with Paul. "If you're considering adjuvant therapy, you have to go the full course..."

A 73-year-old Japanese woman with a Duke's Type A lesion in 1971 had an anterior resection in 1971. She was readmitted in April with a stricture of the rectum and lesions in the liver on scan... Hematologist **Mel Kaneshiro** called in consult for her anemia found roulette formation and serum proteins, bone marrow and immunoelectrophoresis indicated multiple myeloma as well... Mel asked plaintively, "What do we treat first?" Chemotherapist **Jack Keenan** was succinct: "Liver first..." and then added, "Someone's using 5 FU for multiple myeloma as well..."

Miscellany

Rev. Jones was asked to give a talk at a local club luncheon. Tired of religious topics, he gave an inspired talk on the "Minister's View On Sex" and received a standing ovation after. When he got home, his wife was curious about what he had talked on. Knowing what a prude she was, the Reverend mumbled something about sailing and quickly changed the subject... Next day, while shopping downtown, Mrs. Jones met Mrs. Smith who raved about the Reverend's talk... Mrs. Jones remarked, "I really don't know why he chose the subject because he has only tried it twice. The first time, he tried it he kept vomiting and the second time, his hat fell off..." (Frank Fukunaga's contribution)



This Scanning Electron Micrograph (7000 \times) is the first 3-dimensional view of a cell in an ulcerated duodenum. The center is completely denuded, surrounded by fairly well-preserved microvilli. This SEM photomicrograph was taken from a scientific exhibit which won the Hull Award as the "best exhibit on original research or instruction on a medical subject" at the A.M.A. Clinical Convention, November 26-29, 1972, in Cincinnati, Ohio.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Symptomatic relief of hypersecretion, hypermotility and anxiety and tension states associated with organic or functional gastrointestinal disorders; and as adjunctive therapy in the management of peptic ulcer, gastritis, duodenitis, irritable bowel syndrome, spastic colitis and mild ulcerative colitis.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-

prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been

The Tireless Man

whose duodenal ulcer needs a rest

Up early, home late, often with a scratch pad filled with notes, figures, plans. A few hours' sleep and then another long day. This is often the routine of the tireless hard-driver, one-man committee with enough overwork and stress to wear out several men. But his duodenal ulcer may warn him with sharp discomfort that he had better ease up, let some things go, and give himself—and his ulcer—a rest.

The need to reduce G.I. hypermotility and hypersecretion

Overwork together with overanxiety are often principal factors in exacerbating a duodenal ulcer. To help reduce the increased gastric secretions and hypermotility, therapy may need to include treatment for associated undue anxiety—which is where dual-action Librax can be highly useful.

The dual nature of Librax

Only Librax combines, in one capsule, the antianxiety action of Librium® (chlordiazepoxide HCl) and the antisecretory action of Quarzan® (clidinium Br). As an adjunct to a therapeutic regimen, Librax may help relieve both somatic and associated anxiety factors that often contribute to the exacerbation of duodenal ulcer symptoms.

Up to 8 capsules daily in divided doses

For optimal response, dosage should be adjusted to your patient's requirements—1 or 2 capsules, 3 or 4 times daily. *Rx*: Librax #35 for initial evaluation of patient response to therapy. *Rx*: Librax #100 for follow-up therapy—this prescription for 2 or 3 weeks' medication can help maintain patient gains while permitting less frequent visits.

For the anxiety-linked symptoms of duodenal ulcer adjunctive

Librax®

ROCHE

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

ported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes

in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



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1973



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Contains: Selenium sulfide, 2½ %, w/v in aqueous suspension; also contains: bentonite, sodium alkyl aryl sulfonate, sodium phosphate (monobasic), glyceryl monoricinoleate, citric acid, captan, and perfume.

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General Urology, 7th Ed.

By Donald R. Smith, M.D., 436 pp., \$8.50, Lange Medical Publications, 1972.

THE AUTHOR, Professor of Urology at the University of California School of Medicine, San Francisco, originally published this text in 1957 for the purpose of teaching medical students as well as for the medical practitioner who is a nonspecialist in the field of urology but requires a working familiarity with diagnoses and therapeutic techniques available. This text is frequently used by residents in urology as a review in preparation for specialty boards. Many practicing urologists have copies of this text in their offices for reference purposes.

Dr. Smith has effectively kept this book up to date and in each issue has added topics of increasing interest. He has also progressively increased the number of contributors to his text. In this edition, chapters on embryology of the genitourinary tract by Emil Tanagho, radioisotopic kidney studies by Malcolm Powell and Jerome Weiss, and skin diseases of the external genitalia by Rees B. Rees, are noteworthy. The late Dr. John Hutch of the same institution has contributed sections on vesicorenal reflux and the neurogenic bladder.

Hallmarks of this text are clear, concise statements of accepted facts in all fields of urology, clear, diagrammatic figures as well as excellently reproduced and illustrated x-rays which well depict the points that Dr. Smith and his colleagues are trying to make. The bibliography after each chapter is representative of significant contributions concerning the subjects discussed. One must not forget that this book contains many "Smithisms"

such as the use of the PSP test in determining the quantity of residual urine without instrumentation, as well as many, many more pearls of wisdom.

The popularity and acceptance of this book is indicated by the fact that editions are now published in Spanish and German and are being prepared in French, Greek, Portuguese, and Polish.

I certainly feel that this book should be a must in the library of any physician who has occasion to evaluate patients with urological problems or entertain possible urologic diagnoses.

JOHN W. EDWARDS, JR., M.D.

The Chinese Art of Healing

By Stephan Pálos, 237 pp., \$1.95, Bantam Books, 1972.

AMERICANS have suddenly become interested in traditional Chinese medicine and acupuncture. In 1971 Arthur Galston, a biologist from Yale, reported that surgery under acupuncture anesthesia was being used in China. This was dismissed as sheer nonsense. However, later that year, several renown American physicians including Dr. Paul D. White, witnessed surgery performed under acupuncture anesthesia. After their report, American physicians became extremely interested.

What is traditional Chinese medicine? How does it differ from Western medicine? What is acupuncture? How is it performed? What is it used for? How good is it? Stephan Pálos, a Buddhist monk who was born in Hungary and now resides at a Tibetan exile monastery in Switzerland, tried to answer these questions in his book.

In addition, he covers other methods of healing such as moxibustion, respiratory therapy, massage, and cupping.

K. S. TOM, M.D.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states, somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or overmedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

If there's good reason to prescribe for psychic tension...



When, for example, despite counseling,
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distressing somatic symptoms

Prompt action is a good reason to consider Valium[®] (diazepam)

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Efudex® (fluorouracil) works where it counts*...



Lesion #2—Two days after initiation of therapy. Electron micrograph of solar keratotic skin from patient's hand.

Typical abnormalities are:

Malpighian cells [containing an abundance of thick tonofibrils (T)] which are connected with well-developed desmosomes (D). Note the clumped tonofibrils in the so-called 'dyskeratotic' cell (arrow) indicative of solar keratosis. No change can be noted at this level after two days of therapy. $\times 5000$ (12/16/71)



Lesion #3—Two weeks after initiation of therapy. Electron micrograph of skin from patient's hand.

Improvement shown:

Less conspicuous desmosomes (D), widened intercellular spaces and Malpighian cells showing a remarkable reduction of tonofibrils (T). The arrow indicates a degenerating dyskeratotic cell. $\times 5000$ (12/31/71)

Solar, actinic or senile keratoses

By whatever name they may be known, they commonly occur as multiple lesions and chiefly on the exposed portions of the skin. Because they may be premalignant, it is generally agreed that they should be treated. Surgery, cryotherapy, or electrodesiccation may present certain drawbacks, both for the physician and the patient, but there is Efudex® (fluorouracil)—as an alternative to conventional therapy.

Sequence of therapy — Selectivity of response

The easily applied Efudex cream or solution usually begins to show effects within a few days—an erythema in the area of the lesions. Within two weeks after initiation of therapy, this reaction usually reaches its height of unsightliness and discomfort, declining after discontinuation of therapy. This reaction occurs in affected areas. Since the response is so predictable, lesions that do not respond should be biopsied to rule out the presence of a frank neoplasm.

Acceptable results

Treatment with Efudex (fluorouracil) provides highly acceptable cosmetic results posttherapeutically. The incidence of scarring is low.* This is particularly important with multiple facial lesions. Efudex should be applied with care near the nose, eyes and mouth.

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*Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey.



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HAWAII MEDICAL JOURNAL

VOLUME 32/NUMBER 5 • SEPTEMBER/OCTOBER 1973



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What should a medication for sleep be expected to provide?



Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or

recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years

of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with

Sleep for 7 to 8 hours without need to repeat dosage during the night

No sleep medication has been as rigorously evaluated in the sleep research laboratory as Dalmane. Insomnia patients given one 30-mg capsule of Dalmane at bedtime, on average: fell asleep within 17 minutes, had fewer nighttime awakenings, spent less time awake after sleep onset, and slept for 7 to 8 hours with no need to repeat dosage during the night.

Sleep with consistency

Dalmane has been shown to be consistently effective even during consecutive nights of administration. Thus there is little likelihood for the need to increase dosage to maintain therapeutic effect.

Dalmane (flurazepam HCl) is a distinctive sleep medication—a benzodiazepine specifically indicated for insomnia. It is not a barbiturate or methaqualone, nor is it related chemically to any other available hypnotic.

Sleep with relative safety

Chronic tolerance studies have confirmed the relative safety of Dalmane; no depression of cardiac or respiratory function was noted in patients administered recommended or higher doses for as long as 90 consecutive nights. Dalmane is generally well tolerated and morning "hang-over" is relatively infrequent. Dizziness, drowsiness, lightheadedness and the like have been the side effects noted most frequently, particularly in elderly and debilitated patients. (An initial dose of Dalmane 15 mg should be prescribed for these patients.)

DALMANE® (flurazepam HCl)

When restful sleep is indicated

One 30-mg capsule *h.s.*—usual adult dosage
(15 mg may suffice in some patients).

One 15-mg capsule *h.s.*—initial dosage for elderly
or debilitated patients.



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nt depression or suicidal tendencies.
odic blood counts and liver and kid-
function tests are advised during
ated therapy. Observe usual precau-
s in presence of impaired renal or
atic function.

erse Reactions: Dizziness, drowsi-
s, lightheadedness, staggering, ataxia
falling have occurred, particularly
derly or debilitated patients. Severe
ation, lethargy, disorientation and
a, probably indicative of drug intoler-
e or overdosage, have been reported.

Also reported were headache, heart-
burn, upset stomach, nausea, vomiting,
diarrhea, constipation, GI pain, nervous-
ness, talkativeness, apprehension, irri-
tability, weakness, palpitations, chest
pains, body and joint pains and GU com-
plaints. There have also been rare occur-
rences of sweating, flushes, difficulty in
focusing, blurred vision, burning eyes,
faintness, hypotension, shortness of
breath, pruritus, skin rash, dry mouth,
bitter taste, excessive salivation, anorexia,
euphoria, depression, slurred speech,

confusion, restlessness, hallucinations,
and elevated SGOT, SGPT, total and direct
bilirubins and alkaline phosphatase.
Paradoxical reactions, *e.g.*, excitement,
stimulation and hyperactivity, have also
been reported in rare instances.
Dosage: Individualize for maximum bene-
ficial effect. *Adults*: 30 mg usual dosage;
15 mg may suffice in some patients.
Elderly or debilitated patients: 15 mg
initially until response is determined.
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Cover: An original engraving from the collection of
Meryl H. Haber, M.D.

From the third voyage of Captain James Cook, this print by
J. Webber is entitled "Various Articles, at the
Sandwich Islands."

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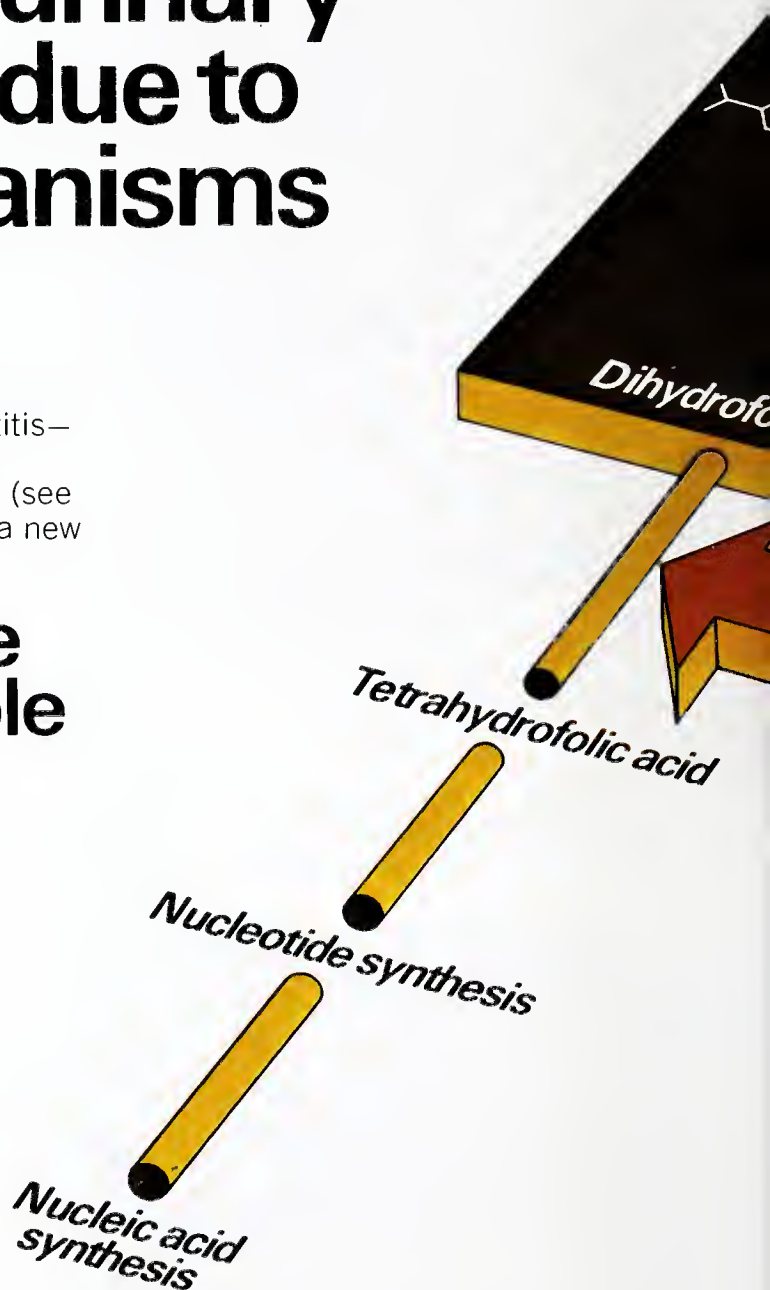
Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

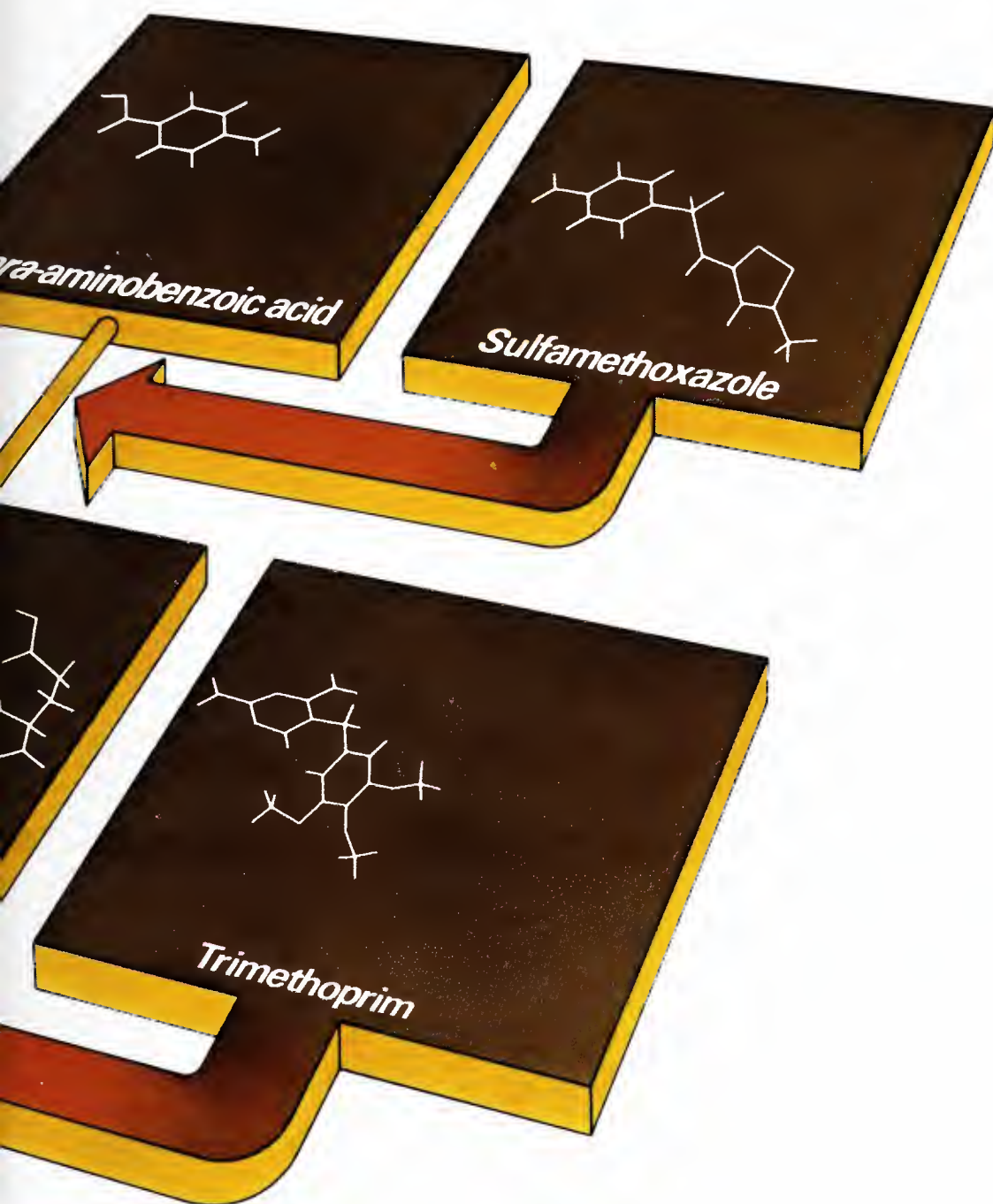
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Before prescribing, please see complete product information on last page of advertisement.

Excellent clinical response in chronic urinary tract infections even with obstructive complications

A multiclinic, double-blind study* of response to a ten-day course of therapy in 471[†] patients with chronic urinary tract infections demonstrated the superiority of Bactrim. On the 10th day after initiation of therapy, 91.7% (of 168 patients) showed significant bacteriological response to Bactrim, compared with 81.2% (of 144 patients) to trimethoprim and 64.5% (of 155 patients) to sulfamethoxazole. More than half of these patients had obstructive complications.

Excellent response maintained

Bactrim proved equally impressive in maintaining this bacteriological response. In the above study, after a ten-day course of therapy with Bactrim, 68.4% of patients with chronic urinary tract infections *maintained* response for up to 42 consecutive days, compared with 59.7% with trimethoprim and 44.4% with sulfamethoxazole. These results are particularly noteworthy considering the number of patients with obstructive complications—cases regarded as being notoriously difficult to treat.

Prescribing considerations

Clinical Limitations: Currently, the increasing frequency of resistant organisms is a limitation of the usefulness of all antibacterial agents, especially in the treatment of chronic and recurrent urinary tract infections. Not recommended for children under twelve.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides. Pregnancy and during the nursing period.

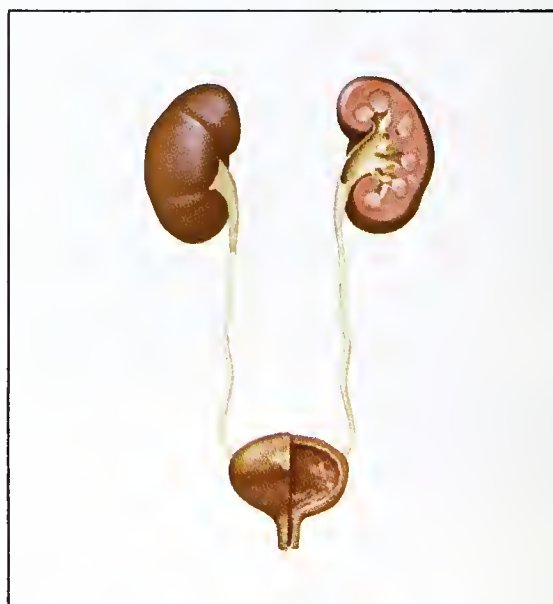
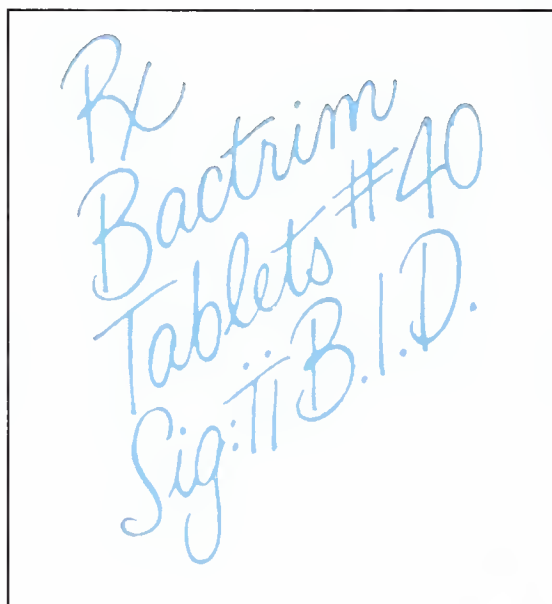
Warnings and Precautions: Both sulfamethoxazole and trimethoprim have been reported to interfere with hematopoiesis. Complete blood counts should be done frequently. If a significant reduction in the count of any formed blood element is noted, Bactrim should be discontinued. Bactrim should be given with caution to patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. Maintain adequate fluid intake. Urinalyses with careful microscopic examination and renal function tests should be performed during therapy, particularly for those patients with impaired renal function.

Adverse Effects: Among the most common side effects are nausea, vomiting, rash, leukopenia and elevations in SGOT and creatinine.

Usual adult dosage: two tablets every twelve hours for 10 to 14 days; no loading dose required.

*Data on file, Hoffmann-La Roche Inc., Nutley, N.J. 07110

[†]4 patients not available for evaluation at day 10.



new **BACTRIM**™

Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

for chronic urinary tract infections



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

Before prescribing, please consult complete product information on facing page.

Complete Product Information:

Description: Bactrim is a synthetic antibacterial combination product, available in scored light-green tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole.

Trimethoprim is 2,4-diamino-5-(3,4,5-trimethoxybenzyl) pyrimidine. It is a white to light-yellow, odorless, bitter compound with a molecular weight of 290.3.

Sulfamethoxazole is N¹-(5-methyl-3-isoxazolyl)sulfanilamide. It is an almost white in color, odorless, tasteless compound with a molecular weight of 253.28.

Actions: Microbiology: Sulfamethoxazole inhibits bacterial synthesis of dihydrofolic acid by competing with para-aminobenzoic acid. Trimethoprim blocks the production of tetrahydrofolic acid from dihydrofolic acid by binding to and reversibly inhibiting the required enzyme, dihydrofolate reductase. Thus, Bactrim blocks two consecutive steps in the biosynthesis of nucleic acids and proteins essential to many bacteria.

In vitro studies have shown that bacterial resistance develops more slowly with Bactrim than with trimethoprim or sulfamethoxazole alone.

In vitro serial dilution tests have shown that the spectrum of antibacterial activity of Bactrim includes the common urinary tract pathogens with the exception of *Pseudomonas aeruginosa*. The following organisms are usually susceptible: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis* and indole-positive proteus species.

Representative Minimum Inhibitory Concentration Values for Bactrim-Susceptible Organisms (MIC—mcg/ml)				
Bacteria	Trimethoprim alone	Sulfamethoxazole alone	TMP/SMX (1:20)	
			TMP	SMX
<i>Escherichia coli</i>	0.05—1.5	1.0 —245	0.05—0.5	0.95— 9.5
<i>Proteus</i> spp. indole positive	0.5 —5.0	7.35 —300	0.05—1.5	0.95—28.5
<i>Proteus mirabilis</i>	0.5 —1.5	7.35 — 30	0.05—0.15	0.95— 2.85
<i>Klebsiella-Enterobacter</i>	0.15—5.0	0.735—245	0.05—1.5	0.95—28.5

Human Pharmacology: Bactrim is rapidly absorbed following oral administration. The blood levels of trimethoprim and sulfamethoxazole are similar to those achieved when each component is given alone. Peak blood levels for the individual components occur one to four hours after oral administration. The half-lives of sulfamethoxazole and trimethoprim, 10 and 16 hours respectively, are relatively the same regardless of whether these compounds are administered as individual components or as Bactrim. Detectable amounts of trimethoprim and sulfamethoxazole are present in the blood 24 hours after drug administration. Free sulfamethoxazole and trimethoprim blood levels are proportionately dose-dependent. On repeated administration, the steady-state ratio of trimethoprim to sulfamethoxazole levels in the blood is about 1:20.

Sulfamethoxazole exists in the blood as free, conjugated and protein-bound forms; trimethoprim is present as free, protein-bound and metabolized forms. The free forms are considered to be the therapeutically active forms. Approximately 44 percent of trimethoprim and 70 percent of sulfamethoxazole are protein-bound in the blood. The presence of 10 mg percent sulfamethoxazole in plasma decreases the protein binding of trimethoprim to an insignificant degree; trimethoprim does not influence the protein binding of sulfamethoxazole.

Excretion of Bactrim is chiefly by the kidneys through both glomerular filtration and tubular secretion. Urine concentrations of both sulfamethoxazole and trimethoprim are considerably higher than are the concentrations in the blood. When administered together as in Bactrim, neither sulfamethoxazole nor trimethoprim affects the urinary excretion pattern of the other.

Indications: Chronic urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, and, less frequently, indole-positive proteus species).

Important note: Currently, the increasing frequency of resistant organisms is a limitation of the usefulness of all antibacterial agents, especially in the treatment of chronic and recurrent urinary tract infections.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides. Pregnancy and during the nursing period (see Reproduction Studies).

Warnings: Deaths associated with the administration of sulfonamides have been reported from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias. Experience with trimethoprim alone is much more limited, but it has been reported to interfere with hematopoiesis in occasional patients. In elderly patients concurrently receiving certain diuretics, primarily thiazides, an increased incidence of thrombopenia with purpura has been reported.

The presence of clinical signs such as sore throat, fever, pallor, purpura or jaundice may be early indications of serious blood disorders. Complete blood counts should be done frequently in patients receiving Bactrim. If a significant reduction in the count of any formed blood element is noted, Bactrim should be discontinued. At the present time, there is insufficient clinical information on the use of Bactrim in infants and children under 12 years of age to recommend its use.

Precautions: Bactrim should be given with caution to patients with impaired renal or hepatic function, to those with possible folate deficiency and to those with severe allergy or bronchial asthma. In glucose-6-phosphate dehydrogenase-deficient individuals, hemolysis may occur. This reaction is frequently dose-related. Adequate fluid intake must be maintained in order to prevent crystalluria and stone formation. Urinalyses with careful microscopic examination and renal function tests should be performed during therapy, particularly for those patients with impaired renal function.

Adverse Reactions: For completeness, all major reactions to sulfonamides and to trimethoprim are included below, even though they may not have been reported with Bactrim.

Blood dyscrasias: Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprolthrombinemia and methemoglobinemia.

Allergic reactions: Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis.

Gastrointestinal reactions: Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis.

C.N.S. reactions: Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness.

Miscellaneous reactions: Drug fever, chills, and toxic nephrosis with oliguria and anuria. Periarteritis nodosa and L. E. phenomenon have occurred.

The sulfonamides bear certain chemical similarities to some goitrogens, diuretics (acetazolamide and the thiazides) and oral hypoglycemic agents. Goiter production, diuresis and hypoglycemia have occurred rarely in patients receiving sulfonamides. Cross-sensitivity may exist with these agents. Rats appear to be especially susceptible to the goitrogenic effects of sulfonamides, and long-term administration has produced thyroid malignancies in the species.

Dosage and Administration: Not recommended for use in children under 12 years of age.

The usual adult dosage is two tablets every 12 hours for 10 to 14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	2 tablets every 24 hours
Below 15	Use not recommended

How Supplied: Tablets, containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 1000; Prescription Paks of 40, available singly and in trays of 10. Imprint on tablets: ROCHE 50.

Reproduction Studies: In rats, doses of 533 mg/kg sulfamethoxazole or 200 mg/kg trimethoprim produced teratological effects manifested mainly as cleft palates. The highest dose which did not cause cleft palates in rats was 512 mg/kg sulfamethoxazole or 192 mg/kg trimethoprim when administered separately. In two studies in rats, no teratology was observed when 512 mg/kg of sulfamethoxazole was used in combination with 128 mg/kg of trimethoprim. However, in one study, cleft palates were observed in one litter out of 9 when 355 mg/kg of sulfamethoxazole was used in combination with 88 mg/kg of trimethoprim.

In rabbits, trimethoprim administered by intubation from days 8 to 16 of pregnancy at dosages up to 500 mg/kg resulted in higher incidences of dead and resorbed fetuses, particularly at 500 mg/kg. However, there were no significant drug-related teratological effects.

BACTRIMTM

Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

ROCHE

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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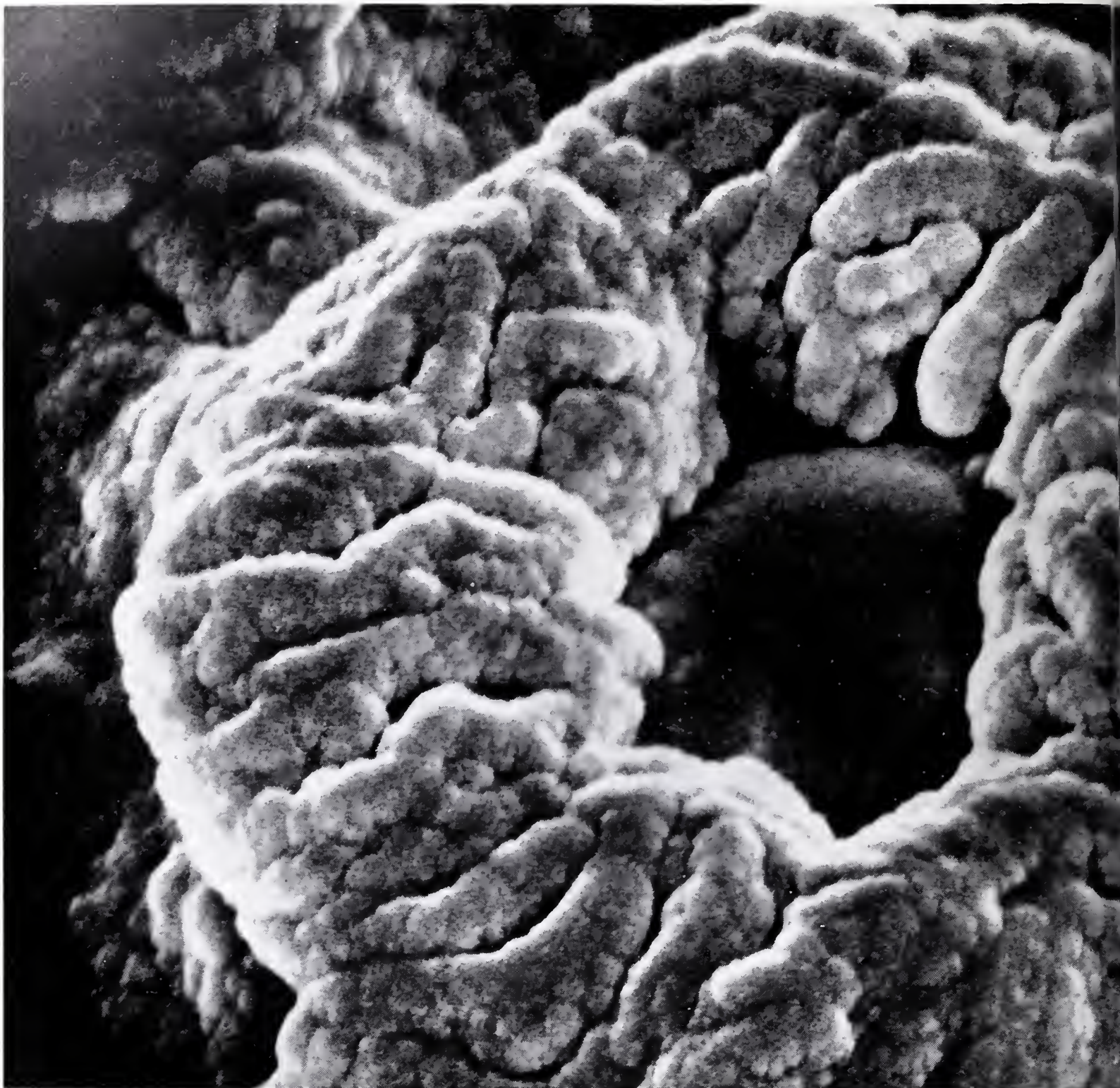
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This Scanning Electron Micrograph (7000 \times) is the first 3-dimensional view of a cell in an ulcerated duodenum. The center is completely denuded, surrounded by fairly well-preserved microvilli. This SEM photomicrograph was taken from a scientific exhibit which won the Hull Award as the "best exhibit on original research or instruction on a medical subject" at the A.M.A. Clinical Convention, November 26-29, 1972, in Cincinnati, Ohio.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Symptomatic relief of hypersecretion, hypermotility and anxiety and tension states associated with organic or functional gastrointestinal disorders; and as adjunctive therapy in the management of peptic ulcer, gastritis, duodenitis, irritable bowel syndrome, spastic colitis and mild ulcerative colitis.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-

prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been

The Tireless Man

whose duodenal ulcer needs a rest

Up early, home late, often with a scratch pad filled with notes, figures, plans. A few hours' sleep and then another long day. This is often the routine of the tireless hard-driver, one-man committee with enough overwork and stress to wear out several men. But his duodenal ulcer may warn him with sharp discomfort that he had better ease up, let some things go, and give himself—and his ulcer—a rest.

The need to reduce G.I. hypermotility and hypersecretion

Overwork together with overanxiety are often principal factors in exacerbating a duodenal ulcer. To help reduce the increased gastric secretions and hypermotility, therapy may need to include treatment for associated undue anxiety—which is where dual-action Librax can be highly useful.

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Only Librax combines, in one capsule, the antianxiety action of Librium® (chlordiazepoxide HCl) and the antisecretory action of Quarzan® (clidinium Br). As an adjunct to a therapeutic regimen, Librax may help relieve both somatic and associated anxiety factors that often contribute to the exacerbation of duodenal ulcer symptoms.

Up to 8 capsules daily in divided doses

For optimal response, dosage should be adjusted to your patient's requirements—1 or 2 capsules, 3 or 4 times daily. *Rx*: Librax #35 for initial evaluation of patient response to therapy. *Rx*: Librax #100 for follow-up therapy—this prescription for 2 or 3 weeks' medication can help maintain patient gains while permitting less frequent visits.

For the anxiety-linked symptoms of duodenal ulcer adjunctive

Librax®

ROCHE

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes

in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



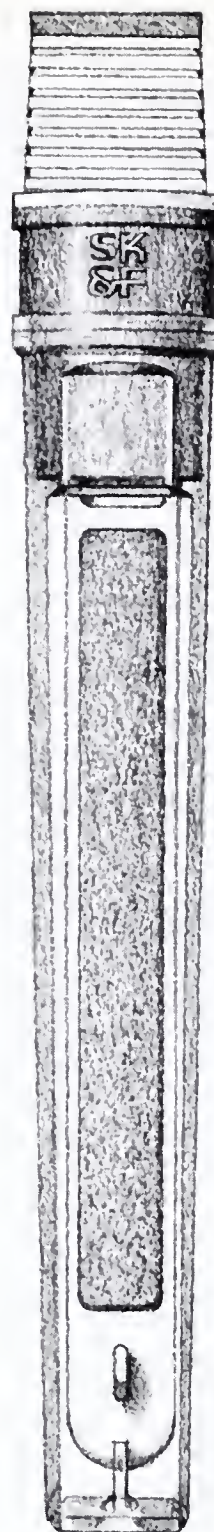
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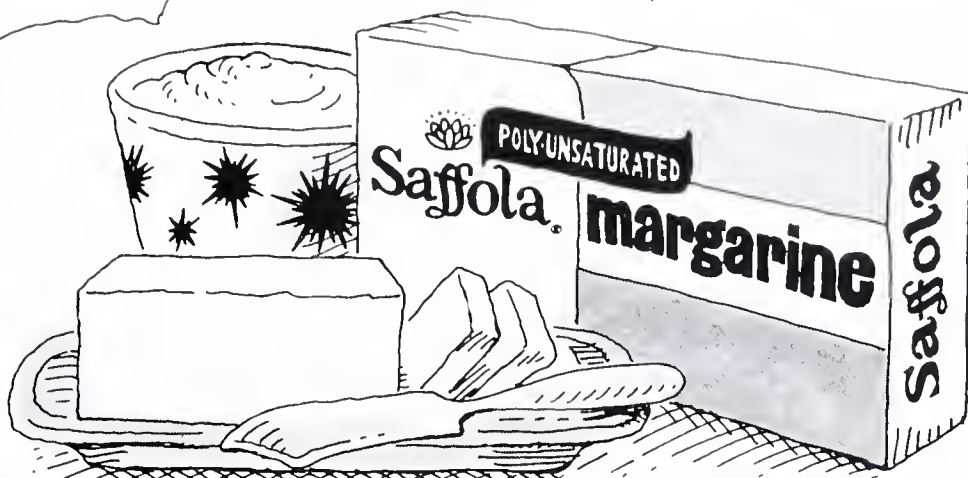
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CASE REPORT

Iatrogenic embolism readily removed

Removal of an Intracardiac Foreign Body Without Thoracotomy

DAVID J.G. FERGUSON, M.D., *Honolulu*

With the present widespread use of intravascular catheters, it is not surprising that occasional reports appear of such objects breaking loose. On the venous side of the circulation, these foreign bodies tend to embolize to the heart or the pulmonary arteries. This report describes such an occurrence and the successful removal of the embolus from the heart without thoracotomy.

A 17-month-old boy who had previously had a ventriculo-atrial shunt, employing a Pudenz valve, performed for hydrocephalus, developed clinical signs of increased intracranial pressure. Chest x-ray revealed the radiopaque tip of a catheter to be lodged near the apex of the right ventricle (Fig. 1). Clearly, the catheter had broken loose and this accounted for the change in the patient's condition. It was decided to attempt removal of the fragment by a nonsurgical technique prior to revising the shunt.

Fig. 1.—Chest x-ray showing opaque tip of foreign body lying in right ventricle.



From Straub Clinic.
Received for publication January 10, 1972.

The terminal 6 cm of a No. 6, 80 cm NIH catheter was cut off. A length of 3-0 gauge stainless steel suture was threaded through the catheter and a small loop made, which was permitted to extend from the distal end of the catheter (Fig. 2). A large loop was made at the proximal end.

Fig. 2.—Cardiac catheter with stainless steel wire loop extending through distal end.



The catheter and contained wire were sterilized by autoclaving.

The patient was sedated with morphine sulphate and sodium phenobarbitol and positioned on a fluoroscopic table.

The instrument was introduced by cutdown into the right femoral vein and advanced up the inferior vena cava. Attempts were made at snaring the foreign body. The snare was passed across the tricuspid valve to the region of the opaque tip, but presumably, because it was embedded in trabeculae, it could not be encircled. A careful search of the right ventricle, right atrium and superior vena cava was also unrewarding. The instrument was then withdrawn.

The terminal wire loop was refashioned to form a small hook (Fig. 3) and it was reintroduced and passed to the right ventricle. After considerable manipulation, the embolus was

Fig. 3.—Cardiac catheter with wire loop refashioned to form a hook.



hooked (Fig. 4, 5). This was apparent when fluoroscopy revealed movement of the opaque tip in unison with the cardiac catheter. As the catheter

Fig. 4.—The foreign body is held by the snare.



Fig. 5.—Close-up view of ensnared foreign body.



ter was withdrawn into the inferior vena cava, the opaque tip of the foreign body was seen to follow across the tricuspid valve and to drop into the inferior vena cava. The cardiac catheter was then carefully withdrawn. The hook caught in several side branches, but, because of the soft nature of the wire used, could be gently pulled straight without damage. The wire loop was then refashioned to form a snare again and this

was reintroduced into the femoral vein, and readily passed over the tip of the foreign body, now lying in the inferior vena cava. The snare was pulled tight and the catheter and the foreign body withdrawn together. The femoral venotomy site was repaired with a small purse string suture of 5-0 silk and the wound approximated.

Discussion

The introduction of flexible catheters into the circulation has become commonplace. The vast majority are used for administering intravenous solutions, but other uses include cardiac catheterization, angiography at various sites, ventriculo-atrial shunts, and pacemaker catheters. There is a small but definite incidence of such objects being lost in part or whole into the vascular system. Dotter¹ has quoted 100 case reports. Several authors have commented that the incidence is probably higher since some of these emboli go unnoticed and since there is a natural reticence about reporting iatrogenic problems.

Serious complications of these emboli are well documented and include bacterial² and fungal³ endocarditis, pulmonary embolism⁴, massive intracardiac thrombosis⁵, and perforation of atrium⁶ or ventricle⁷ with hemopericardium. On the other hand, instances have been reported where the foreign body remained in position for several years without causing harm, notably Lamprecht's case⁸ where the catheter was discovered at autopsy, six and a half years after its introduction. Since the overall occurrence of catheter embolism is unknown, the incidence of complications is also unknown, but is clearly high enough to warrant removal of these foreign bodies.

Such emboli were initially removed surgically⁹, but in 1967 Massumi and Ross¹⁰ reported the retrieval of a piece of polyethylene catheter by a nonsurgical technique, using a loop snare. Thomas *et al*¹¹ had previously retrieved a spring guide wire fragment, using bronchoscopy forceps. Dotter was able to collect 29 cases of transluminal removal of such objects up to June, 1970, and several additional reports have appeared since then.^{12,13,14,15}

Various techniques have been used, mostly similar to that described here. Bronchoscopic forceps would seem more hazardous than a flexible instrument. Ureteric stone baskets^{16,17,18} have been employed, and a special snare catheter is commercially available; but, in about one-third of the reported cases, the instrument has been *homemade* to suit the particular situation.

Among the reports of transluminal removal of catheter emboli, only three others^{19,1,13} are known by the author to have arisen from ventriculo-atrial shunts, and these are, not unexpectedly,

also the only three children. These cases all involved opaque catheters associated with Holter valves. In the case reported here, the fragment was from a Pudenz valve, with only the tip opaque, which necessitated a partially *blind* approach.

Summary

The use of flexible catheters in the circulation

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is extremely common. Occasionally, they break loose and embolize, with potential for serious complications. They should be removed, preferably transluminally; surgically, if this cannot be achieved. A case of nonsurgical removal of the catheter portion of a Pudenz valve is described.

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... or, “who needs alcohol, with Librium in the Libation?!”

Should We Put Benzodiazepines in Our Drinking Water?

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Perhaps the title suggests an alternative to the problem of fluoridating our drinking water. Come to think of it, the problems of fluoridation might proceed less emotionally if benzodiazepines had already been added to the water. On the other hand, most people, especially the elderly, would suffer so much from muscle weakness from the benzodiazepines that they might not have the strength to open the tap. So perhaps the whole thing is not a very good idea, but the manner in which these drugs are dispensed these days leaves a somewhat similar impression at times.

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What are the benzodiazepines, anyway? Well, in alphabetical order they are: chlordiazepoxydihydrochloriodum (Librium); chlorazepanum (Tranxene—a new one); diazepamum (Valium); ozazepamum (Serax). I hasten to make my excuses for chemical um-uming, when we all know that psychiatrists should restrict themselves to verbal doctor-patient um-uming.

In addition, if I have forgotten an um-umer or if a new one has come on the market before this is published, please forgive me; no harm intended. (Scrabble players may profit from these words by finally getting rid of letters x and y).

Excessive Prescriptions

There seems to be an excessive number of prescriptions written for the benzodiazepines. Some physicians appear to think the benzodiazepines are a panacea, as they prescribe them for everything. Actually they are minor tranquilizers or ataractics (a=without, taraxis=disturbance).

In 1960, C.H. Sternbach¹ and his co-workers found the structure of chlordiazepoxydihydrochloridum by an "accidental" rearrangement of certain aromatic lipophil amines. Chemically, one sees a base N (nitrogen) atom that is separated by one C (carbon) atom from a benzol or phenyl group.

Sub-Cortical Action

Physiologically, the mode of action is predominantly subcortical. These subcortical structures play an important role in psychological and behavioral characteristics. It appears that small amounts of benzodiazepines are specific blockers of the limbic system and therefore also influence the reticular system and reticular formation of the brain stem. However, huge doses are necessary to depress cortical structures for a desired therapeutic effect!

The four main functions of benzodiazepines are:

a. anxiolytic, b. sedative, c. muscle-relaxant, and d. anti-convulsive.

It would be nice if we knew how each drug works with respect to each of these four functions. We don't. That is why each physician should learn one or two of these drugs very well, observe different reactions to them in various patients, and not shift hastily from one benzodiazepine to another. Let's remember that we are dealing with drugs, potentially addictive to some patients, that should not be stopped abruptly (withdrawal signs of insomnia, convulsions and motor restlessness are fairly common. Indeed, these signs may appear as late as one week after abrupt discontinuance of the drug.

The half-life of these drugs is long and the patient should be clean before anticoagulants are given. Variable effects are noted on blood coagulation. Patients with myasthenia gravis should not be on benzodiazepines for psychological problems! This, of course, is a No-no!

The Indications

The true indications for this group of drugs are:

a. Delirium tremens and the acute alcoholic hallucinosis; some exogenic psychoses; and status epilepticus. b. If "talking down" is impossible, then the toxic psychosis seen with LSD and allied drugs usually resolves well with 50-100 mg of Librium im. In a borderline psychotic who has used a great deal of cannabis, one may see a similar picture, and I follow the same regimen. c. The "amphetamine psychoses" and other "uppers" that show a similar clinical picture. Here, Librium is also the drug of choice if the aggressive patterns of reaction rule the picture. I give 50-100 mg im. This usually works, although one may have to repeat it in 4-6 hours before psychotherapy can be instituted. d. Those illnesses where muscle relaxation serves therapeutic intent: tetanus, rheumatic diseases of all types, certain myalgias, and during the conservative treatment of herniated discs. e. Psychological tension syndromes that are coupled with anxiety. The drug should serve to treat only one or two target symptoms. The brunt of the treatment is "talking therapy" of one type or another.

As far as side effects are concerned, this group of drugs is relatively safe. Once in a great while, a paradoxical reaction occurs and the patient becomes manic, with tense musculature (seen mostly in hyperactive children). The syndrome usually disappears in 24 hours if no further benzodiazepines are given. The individual sensitivities to the drug are impossible to predict. (Begin with low doses and you'll be less apt to get sued.)

Remember if the patient complains of physical fatigue due to muscular exertion (sports, strenuous labor, etc.) or has any organic illness causing such fatigue, the drug may worsen fatigue. I never give these drugs to patients over 65 years of age unless they are very "vital" people. If you do, beware of Colles fractures.

One really shouldn't be on high doses of these drugs and drive. They also cause a lowered tolerance for alcohol.

Executives and others in positions which require important decision-making may become too nonchalant as regards their patterns of thinking and business or social decorum.

Some patients eat too much on benzodiazepines and this effect may be used positively where weight gain is desired.

Conclusion

Keep some benzodiazepines in your doctor's bag, but not too many.

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THYROID FUNCTION TESTS— AN ENIGMA?

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The archetype of measuring thyroid function—high, normal, or low—was the BMR¹, the basal metabolic rate. It gave us an excellent measure of the metabolic state of a patient, but it did not always reflect the true function of the thyroid gland. Thyroid blood tests were developed later and thought to be far superior and more practical: They soon brought the BMR into disuse.

PBI (protein bound iodine)², T4 test (thyroxine iodine)^{3,4,5}, RT 3 (resin T3 uptake)⁶, and radioiodine uptake⁷ determinations have added a vast body of knowledge about thyroid physiology with all its vagaries. Still, they leave open the question of hyper- or hypothyroidism in some cases. Radioiodine uptakes only reflect the avidity of the thyroid gland to retain administered iodine at any particular time, regardless of the metabolic state of the patient. Exogenous iodine and various drugs continue to challenge the laboratory assessment of thyroid function.

How do we make the diagnosis? It still needs to be made clinically, and a cry for the old BMR has been heard from many a thyroidologist. If a diagnosis is clinically suspected, it needs to be pursued despite seemingly normal blood tests. On the other hand, if the tests appear abnormal in an unexpected fashion, the reason for the abnormality should be found, as this may not be simply a laboratory error. It is the purpose of this paper to propose a solution to these problems by means of two additional tests measuring: 1. Thyronine-binding globulin (TBG) and 2. Triiodothyronine (T3).

The present standard way of estimating the level of the circulating thyroid hormones thyroxin (T4) and triiodothyronine (T3) is a combination of the T4 test by competitive protein binding with an RT3. Neither of these tests suffers from

interference by any kind of exogenous iodine. The only two known variables that will make the results elusive are abnormalities of the thyroid-binding proteins, especially thyronine-binding globulin (TBG), and a relative excess of circulating T3 over T4—ie, a high T3/T4 ratio, as shown on Table 1. An additional theoretical possibility

TABLE 1.—Effects of changes in TBG and T3/T4 ratio on T4 test and RT 3 in a euthyroid patient.

	T4 TEST	RT3
High TBG	high	low
Low TBG	low	high
High T3/T4	low	low or normal
Low T3/T4	high	high

is a relative lack of T3, or low T3/T4 ratio. From Table 1, it is apparent that almost any test results can be expected in a euthyroid patient, if abnormalities of TBG, T3/T4 ratio, or combinations thereof, are present.

TBG Abnormal

A notorious cause of high TBG is circulating estrogens in the form of contraceptives, pregnancy, and in the newborn (transplacental). High TBG may also be associated with infectious hepatitis, hypothyroidism, acute intermittent porphyria, or may be a familial disorder transmitted by an X-linked dominant gene.⁸ Low TBG may be found in patients on steroids or androgens, in protein deficiencies (nephrosis, major illness), acromegaly, thyrotoxicosis, and again as an inherited X-linked dominant trait.⁹ Dilantin treatment simulates a decrease in TBG by occupying binding sites on TBG in competition with thyroid hormones.

A simple, ingenious way to correct for TBG abnormalities on a T4 determination is utilized in tests known as Effective Thyroxine Ratio (ETR)¹⁰ and Normalized Serum Thyroxine

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(T4N)¹¹. Their principle is a reintroduction of the patient's serum with its own TBG into the test system containing the patient's total extracted T4, thus providing a double competitive protein-binding assay. This procedure reflects the thyroid hormone level well, but fails to identify the patient with abnormal TBG for future reference. Therefore, it may be preferable to measure TBG as such by saturation¹², radioimmuno-assay¹³, or competitive ligand-binding assay¹⁴.

T3/T4 Ratio Abnormal

The major thyroid hormone secreted physiologically is T4, which accounts for the measurable entity in a T4 test or RT3. Triiodothyronine is biologically several times more potent than T4 and its blood levels are negligible, measured by the above tests. As attention was focused on triiodothyronine, several reports of T3 thyrotoxicosis emerged^{15,16}, and T3 was found to play an important role in a variety of other disease states such as in early "T4" hyperthyroidism, in toxic nodular goiter, after radioiodine treatment, in Hashimoto's thyroiditis, and in iodine deficiency.

Finally there is evidence that significant quantities of T4 are converted to T3 extrathy-

roidally in athyreotic¹⁷ as well as in normal man.*¹⁸. Measurements of serum T3 levels by chromatography¹⁹ or radioimmunoassay²⁰ are becoming more readily available, and the future, no doubt, will make the need for these tests even more pressing.

A number of other tests such as measurements of thyroid stimulating hormone (TSH), antibodies etc., and various stimulation and suppression tests are often indispensable to complete a thyroid workup. However, as an initial screening blood profile, a T4 test and an RT3 should suffice. If there are consistent discrepancies in the results, or results are contrary to the clinical expectations, as is indeed not uncommon, then the most likely answer would lie in alterations of TBG or T3 levels, or both.

Clarification of these situations by measuring TBG and T3 may prove thyroid replacement therapy needless in some cases and increase the diagnostic yield in hyperthyroidism. Increasing experience with radioimmunoassays in Hawaii should soon bring these tests within the reach of the clinician, especially as they pertain to one of the most common endocrinopathies.

*Such changes in the relationship between circulating T3 and T4 affects T4 test and RT3, and call for a direct determination of T3.

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NOTICE

The Hawaii Thoracic Society recommends that influenza vaccine be given to chronically ill patients and to older persons in general. They suggest that the optimum times for the administration of flu shots are:

OCTOBER—For those who have not previously had flu vaccinations

NOVEMBER—For those who regularly have flu vaccinations

Too much salt, too high the blood pressure!

Sodium and Potassium in Ready-To-Eat Foods in Hawaii

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Many foods in their natural state contain sodium and potassium, and often during the preparation or processing of food sodium and/or potassium containing compounds are added. It is important for those who are concerned with low sodium intake to be able to recognize foods which are low in sodium.

In Hawaii seasonings which increase the sodium content of foods are concentrated salt preparations of fish, such as patis, bagoong, and oyster sauce; fermented soy products, such as soy sauce, teriyaki sauce, and miso; oriental salt preserves of beans, seaweeds, plums, onions, and ginger; and the seasonings such as Hawaiian salt and "Ajinomoto" or "Accent." A low-sodium food can rapidly become a sodium-rich food by the addition of one or more of these seasonings to arrive at a desirable taste. Children in Hawaii enjoy, in addition to regular salty snacks such as chips and nuts, other snacks rich in sodium chloride, such as preserved seeds and salty seeds of the Orient.

Among factors which affect blood pressure, dietary sodium has been implicated by studies on Japanese in Japan^{1,2} and on the Polynesian population of Rarotonga.³ A concern about the sodium consumption in Hawaii led to an analysis of sodium and potassium content of some commonly used foods in this state.

Materials and Methods

Food samples purchased from grocery stores, restaurants, and bakeries were analyzed as such, except for a few items which needed preparation in the laboratory (Table 1). The foods were

passed through a Waring blender without the addition of water and then samples taken for analysis. Aliquots were weighed in crucibles which had been rinsed in hydrochloric acid and dried. The samples were ashed in a muffle furnace at 550°C for 18 hours. After cooling, doubly distilled water was added to the crucibles to check the completeness of ashing. If the ashing was not completed, the samples were re-ashed at 550°C for another 18 hours. The ash samples were weighed and dissolved in 6N HCl and made to volume with doubly distilled water.

The volumes differed, depending on the type of foods and sample sizes. The percent transmittance of each solution was measured for sodium and potassium in the Beckman flame photometer. As a check on the instrument and procedure, sodium contents of 24 foods were measured in the Perkin Elmer atomic absorption spectrophotometer and on the Beckman flame photometer; values were comparable. All the sodium and potassium values reported in Table 1 were measured in the Beckman Model B flame spectrophotometer.

Results and Discussion

In order to enhance the use of the data in Table 1, information on the handling of food samples and the weights in grams of serving sizes were included. Published values for sodium and potassium⁴⁻⁷ are cited in Table 1 for comparison with values obtained in the study; however, only limited comparison can be made, since such values have not been reported for most of the foods covered by this study. Of the ten published values for potassium, those for orange juice, mango, and avocado were higher than our values. Of two values reported for papaya, one was higher and the other was similar to our value. Published values for sodium

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TABLE 1.—Sodium and potassium in foods of Hawaii (mg/100g foods).

Food	SODIUM		POTASSIUM		Handling of food sample	EQUIVALENT WEIGHTS OF SERVINGS	
	Our values	Values reported elsewhere	Our values	Values reported elsewhere		Serving	Weight (g)
BREAD AND ROLLS							
Bread, Portuguese	269	—	88	—	As purchased	1 slice	36
Muffins, English	834	—	139	—	As purchased	1 piece	62
BEVERAGES							
Grape juice	3	1(4)*	11	34(4)	As purchased	1 cup	224
Guava nectar	2	—	4	—	As purchased	1 cup	243
Passion-orange nectar	2	—	1	—	As purchased	1 cup	223
Orange juice, reconstituted	9	1(4)	108	200(4)	As purchased	1 cup	248
Pineapple-orange juice	6	—	90	—	As purchased	1 cup	230
DESSERTS							
Cake, cheese, Sara Lee	395	—	149	—	As purchased	1/8 of 6" cake	63
Cake, orange chiffon, no icing	238	—	44	—	As purchased	1/12 of 8" cake	40
Cake, orange chiffon, with icing	215	—	26	—	As purchased	1/12 of 8" cake	40
Cake, prune, with icing	293	—	41	—	As purchased	3"x2"x1-3/4"	65
Cookies, nori	64	—	43	—	As purchased	7 pieces	10
Ice cream sandwich	310	—	186	—	As purchased	1 piece	58
Ice milk, chocolate coated	168	—	386	—	As purchased	1 bar	55
Kanten	4	—	3	—	As purchased	2"x1-1/8"x1/4"	14
Malasada	134	—	9	—	As purchased	1 piece	31
Pie, banana cream	150	—	14	—	As purchased	1/7 of 9" cake	130
Sherbet, guava	29	—	28	—	As purchased	1 cup	193
Sherbet, orange	35	10(4)	43	22(4)	As purchased	1 cup	165
Yokan	52	—	45	—	As purchased	2"x1-1/8"x1/4"	14
FISH AND FISH PREPARATIONS							
Abalone, canned	695	—	66	—	As purchased	2"x1/2"x1/16"	6
Ahi, broiled with soy sauce	634	—	483	—	Broiled in lab	3"x2"x1"	100
Ahi, raw, plain	31	31-39(5)	418	—	As purchased	2"x1-1/2"x1/16"	10
Ahi, raw with soy sauce	496	—	399	—	Prepared in lab	2"x1-1/2"x1/16"	10
Aku, broiled, plain	26	—	399	—	Broiled in lab	3"x2"x1"	100
Aku, broiled, with soy sauce	452	348(5)	395	—	Prepared in lab	3"x2"x1"	100
Aku, raw, plain	25	32-59(5)	280	—	As purchased	2"x1-1/2"x1/16"	8
Aku, salted, dried	3,238	—	707	—	As purchased	3"x1-1/2"x3/8"	33
Aku, salted, smoked, dried	3,188	—	934	—	As purchased	3"x1-1/2"x3/8"	35
Bagoong	8,451	9,480(6)	271	—	As purchased	1 tablespoon	17
Butterfish, raw	58	—	272	—	As purchased, bones removed	3-1/2"x4"x3/4"	155
Caviar, whitefish	3,904	—	187	—	As purchased	1 teaspoon	10
Cod, salted, dried, steamed	11,061	—	603	—	Steamed in lab	3-1/2 oz.	100
Kamaboko	3,419	—	307	—	As purchased	2"x1-1/2"x1/4"	17
Kamaboko, tempura	2,945	—	314	—	As purchased	2"x1-1/2"x1/4"	16
Mahimahi, broiled, plain	120	—	267	—	Broiled in lab	3-1/2"x2"x1/2"	100
Mahimahi, breaded, fried	376	—	230	—	Prepared in lab	3"x3"x1"	124
Opelu, fried, plain	50	—	431	—	Fried in lab, bones removed	6-1/2"x3"	224
Opili, raw, prepared	4,088	—	377	—	As purchased	1/3 cup	65
Salmon, raw, salted	11,514	—	300	—	As purchased	3"x2-1/2"x1"	121
Sardine with tomato sauce (Holmes)	181	400(4)	346	320(4)	As purchased	1 sardine + 1/2 teaspoon sauce	51
Shrimp, curry	345	—	103	—	As purchased	1/2 cup	100
Shrimp, dried	3,321	—	799	—	As purchased	1 tablespoon	7
Shrimp, sweet sour	263	—	57	—	As purchased	1 cup	169
Squid, dried	4,587	—	805	—	As purchased	7/8"x7/8"x1/8"	4
Tuna, creamed	707	—	329	—	Prepared in lab	1 cup	238
FRUITS							
Mango, Chinese	2	7(4)	58	189(4)	Skin and seed removed	1	63
Papaya, winter	14	3(4)	57	234(4), 69(7)	Skin and seeds removed	1/2 medium	120

Food	SODIUM		POTASSIUM		Handling of food sample	EQUIVALENT WEIGHTS OF SERVINGS	
	Our values	Values reported elsewhere	Our values	Values reported elsewhere		Serving	Weight (g)
MEATS							
Beef teriyaki, uncooked	796	—	255	—	As purchased	3 oz.	85
Duck, roast, Chinese style	707	—	108	—	As purchased	1-1 4"x1"x3/4"	33
Sausage, Chinese, cooked	2,170	—	352	—	Cooked in lab	one, whole	35
Sausage, Portuguese, cooked	1,391	—	274	—	Cooked in lab	2" long	39
Turkey, smoked, baked	1,512	—	818	—	As purchased	4-1/2"x2"x1/2"	65
MEAT, EGGS, VEGETABLE AND OTHER PREPARATIONS							
Bread stuffing, turkey	320	—	39	—	Home prepared	1 cup	141
Chop suey, pork	453	—	89	—	As purchased	1 cup	290
Chow fun	249	—	43	—	As purchased	1 cup	152
Corn beef hash	550	—	53	—	As purchased	1 cup	226
Manapua, black bean	41	—	72	—	As purchased	1 piece	85
Manapua, pork	328	—	46	—	As purchased	1 piece	94
Meat loaf	282	—	21	—	Home prepared	4"x2"x3/4"	78
Pig's feet, Chinese style	341	—	72	—	As purchased, bones removed	1 cup	194
Pork harm har	442	—	209	—	As purchased	1 cup	227
Rice, fried, pork	756	—	99	—	As purchased	1 cup	143
PICKLES							
Cabbage, Chinese, salted	1,166	—	188	—	As purchased	1 pkg, drained	183
Cabbage, mustard, salted	1,632	—	224	—	As purchased	1 pkg, drained	200
Kim chee	680	—	153	—	As purchased	2/3 cup	100
Takuan	1,298	—	177	—	As purchased	1 cup	172
Umeboshi	7,306	—	168	—	As purchased	1 piece	5
SNACKS							
Crackers, creme	344	—	82	—	As purchased	1 piece	11
Nuts, macadamia, chocolate coated	128	—	202	—	As purchased	1 piece	2
Nuts, mixed, salted	389	—	518	—	As purchased	1/2 cup	100
Noodles, crisp fried	272	—	98	—	As purchased	1 cup	144
Noodles, soft fried	147	—	49	—	As purchased	1/2 pint	360
Preserved cuttlefish	2,354	—	772	—	As purchased	one 1/2 oz. bag	14
Preserved baby seeds	1,535	—	67	—	As purchased	one 3/4 oz. bag	22
Preserved cracked seeds	1,541	—	71	—	As purchased	one 3/4 oz. bag	19
Preserved lemon	10,123	—	284	—	As purchased	one 1/2 oz. bag	14
Preserved salted seeds	16,511	—	636	—	As purchased	one 3/4 oz. bag	25
Preserved seedless mango	3,384	—	64	—	As purchased	one 3/4 oz. bag	20
Preserved snow white plum	11,560	—	542	—	As purchased	one 1/2 oz. bag	13
Preserved sweet sour seeds	1,259	—	110	—	As purchased	one 3/4 oz. bag	23
Rice, puffed, candied	32	—	43	—	As purchased	1 piece	11
VEGETABLES							
Avocado, raw, peeled, pitted	7	4(4)	394	604(4)	Prepared in lab	1/4 large	100
Bean sprouts, mungo, raw	17	—	50	—	As purchased	1 cup	100
Egg plant, baked, peeled	8	—	201	—	Prepared in lab	1/2 cup	102
Poi	16	—	159	—	As purchased	1/2 cup	120
Potato, hashed brown	202	—	214	—	As purchased	1/2 cup	100
Vegetables, mixed, frozen	169	—	113	—	As purchased	1/2 cup	67
Seaweed-sesame	5,084	—	1081	—	As purchased	2 tablespoons	11
Taro corm, baked	47	—	1031	—	Baked in lab	1 cup	132
Watercress, raw	61	52(4)	261	282(4)	As purchased	2 cups	100
MISCELLANEOUS							
Coffeemate	192	—	604	—	As purchased	1 teaspoon	2
Natto	9	—	546	—	As purchased	1/3 cup	58
Pream	242	—	668	—	As purchased	1 teaspoon	2
Pro sobee powder	84	—	148	—	As purchased	3-1/2 oz.	100
Tofu	18	7(4)	37	42(4)	As purchased	1 cup	200

*Figures in parenthesis indicate reference cited.

content of 13 foods were similar to the values obtained in this study.

In general, all unseasoned foods, whether fish, fruit, or vegetables, contain more potassium than sodium. Sodium enters food chiefly through human intervention. Ahi and aku, which when consumed plain may be considered a low-sodium food, have their sodium content raised more than 15-fold by addition of a teaspoon of soy sauce. The potassium content of the fish was not changed.

We are concerned about the amount of sodium that school children obtain from snack foods, particularly those known as preserved seeds. By eating and sucking these seeds, a child can get 500, 590 or 100 milligrams of sodium from one snowwhite plum, one salted seed, or one cracked seed, respectively.

The amount of sodium that a person should eat daily has not been determined. Estimates put the American consumption of sodium at 2.4 to 7.7 grams per day.⁸

A study by Prior *et al*³ on two Polynesian populations in Pukapuka and Rarotonga showed

that the people of Pukapuka consumed 1.2 to 1.5 grams of sodium daily and there was no increase in blood pressure with age. In Rarotonga, the daily consumption of sodium was 2.7 to 3.5 grams and the blood pressure increased with age.

It is likely that the sodium intake of Americans is too high.

From the data gathered in this study, one can state that preserved foods used in Hawaii and processed in Japan, Philippines, Taiwan, Hong Kong, or Hawaii, where a large amount of sodium-containing preservative is employed, must be used with discretion to obtain a diet relatively low in sodium. Ingestion of fresh fish and vegetables without sodium-containing seasonings appears to be a desirable practice, since these foods contain generous amount of potassium and are low in sodium.

Summary

For meals low in sodium and generous in potassium, use fresh fish, fresh vegetables, and go easy on seasonings and "crackseed."

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A "Nightfish"—in Place of the Usual "Nightmare"

Hallucinatory Mullet Poisoning A case from Oahu

ALBERT H. BANNER, Ph.D., *Honolulu*

The disease known as "hallucinatory mullet poisoning" (or "ichthyolallyeinotoxism" of Halstead¹) has long been known to be caused by mullet and surmullet or goatfish from restricted areas on the reefs of Kauai and Molokai. The

first published report on the disease is that of Jordan, Evermann and Tanaka², in 1927; laborers on the island of Molokai were stricken with delirium after eating weke pahala (Upeneus arge, Jordan and Evermann). They sent a sample of the brains to Dr. Nils Larsen, who fed them to cats, which "at once went crazy, but

From the Hawaii Institute of Marine Biology, University of Hawaii.
Received for publication April 30, 1972.

recovered." An apparently similar disease has been reported from the Gilbert Islands³, Norfolk Island⁴ and South Africa⁵, and has been attributed to rudder fish (*Kyphosus vaigiensis*, Quoy and Gaimard) and possibly to groupers and damselfish in addition to the mullet and surmullet. The disease has been reviewed by Helfrich and Banner⁶ and Halstead¹. This report extends the range of the disease to the island of Oahu, and describes symptoms in a mild case.

Three goatfish, about 10 inches long, probably *Mulloidichthys flavolineatus* (Lacépède) (*M. samoensis* of most authors,) ("weke" or "weke 'a'a" in Hawaiian) were caught by Mr. L. on the evening of 15 March, 1972 on the reef area known as Kualoa, immediately north of Kaneohe Bay on Oahu. The fish were refrigerated after capture and cleaned the following evening. They were fried and served with soy sauce at the L. family dinner about 8 PM; Mrs. L. and their four children ate most of the bodies, the father, Mr. L., ate some of the flesh from the bodies and the heads of the three fish. No unusual taste was noted. No members of the family other than the father developed any symptoms.

Mr. L. went to bed about 12:30 AM, fell asleep and soon began to have "bad dreams" and, later, nightmares. Twice he was awakened when sleeping on his back with a feeling of "needles" in the scalp, on the back of his head, and the skin on the back of his neck and shoulders. In his dreams he thought he was sleeping on electrically charged bed-springs without a mattress. After the second awakening, and on the advice of his wife, he took an aspirin tablet and went to sleep on his belly.

After a short time he was reawakened, but this time with the "electrically charged sensation" on the ventral side of his body. Realizing he was keeping his wife awake, he gave up trying to sleep in bed about 2 AM and sat up in the living room, watching television. Sitting in a soft chair, he would drift into sleep. Again his dreams plagued him. At times he would feel as if he were steadily sinking or falling. In one dream, he was walking along a beach with a bag of fish when the bag broke while a huge wave was approaching; he tried to gather up his catch and flee to safety, but he was overwhelmed with a feeling of helplessness. At 5 AM he gave up

trying to sleep, prepared and ate a hot breakfast, and was troubled no more. The following night he slept soundly.

This case is the first one reported from Oahu. However, Mr. L. states that he was similarly intoxicated by the same species of fish in the same area several years ago and that he has heard of similar intoxications caused by other fish from Oahu. His case was mild, compared to cases from Kauai and Molokai, his onset of symptoms was slow and he experienced no depression, dizziness, or lack of coordination, nor had he any gastrointestinal disorder.



Hawaiian goatfishes that cause hallucinations: Upper, *Mulloidichthys flavolineatus* ("weke" or "weke-a-a"), the species that caused the case reported. Lower, *Upeneus arge* ("weke pahula" or "flag-tail weke"), the species that causes most cases from Molokai and Kauai. Photographs courtesy of the Hawaii State Division of Fish and Game.



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Hypoglycemia and Probable Lactic Acidosis During Phenformin Therapy

CHARLES K. TASHIMA, M.D., *Honolulu*

Several cases of lactic acidosis associated with hypoglycemia have now been reported. Some of these have been related to phenformin overdose^{1,2,3} or to usual therapeutic doses⁴, while others have not been associated with phenformin at all⁵.

Since the clinical course of lactic acidosis has sometimes improved in such cases when the hypoglycemia was vigorously treated, prompt glucose administration has been advised for such patients^{4,5}. We recently encountered a patient on phenformin therapy who was treated for hypoglycemia initially before the severe metabolic acidosis was detected and who recovered from the usually fatal situation. The case reiterates the principle that initial vigorous therapy with glucose may be beneficial.

Case Report

A 75-year-old Filipino man had been treated in the clinic since 1962 for diabetes detected in 1955. He was given Orinase (tolbutamide) until February 1968, when he was switched to Diabinese (chlorpropamide), 100 mgm a day. Twelve weeks prior to admission the Diabinese was replaced by DBI-TD (phenformin hydrochloride), 50 mgm a day by a medical resident, for no specific indication.

On the morning of admission he reported to the clinic, having fasted all night, for routine blood tests prior to his clinic visit the following week. Blood drawn at 7:45 AM revealed uric acid 8.6 mgm%, fasting blood sugar 141 mgm% and creatinine 1.6 mgm%.

At 1:05 PM the patient was brought in by ambulance, complaining of severe epigastric pain and two vomiting episodes. Blood pressure was 240/110, pulse 120 per minute. The patient

was restless but coherent. Respiratory rate was not recorded, but he did not appear to several observers to be hyperventilating. The lungs were clear and the examination of the heart was not remarkable. No masses or tenderness were noted in the abdomen; bowel sounds were active.

Initially, the diagnoses of acute myocardial infarction, duodenal ulcer or hypoglycemia were considered. The electrocardiogram, however, revealed no significant changes. The urine was negative for glucose. When a blood sugar of 40 mgm% was reported at 2:20 PM, 50 gms of glucose was immediately given intravenously, which seemed to partially relieve the patient's abdominal discomfort. At 3:15 PM the blood pressure was 190/90, pulse 132 per minute, and respirations 20 per minute. Concerned over the persistent tachycardia and abdominal pains, the house officer started an intravenous infusion of 10% dextrose in water at 3:45 PM and admitted the patient to the Ward as acute pancreatitis.

On admission at 5:00 PM the patient was described as hyperventilating, confused, agitated, dehydrated and complaining of diffuse abdominal pain. BP was 210/120, pulse 116 per minute, respirations 32 per minute, temperature 95.8°F.

Urinalysis revealed pH 5.5, specific gravity 1.009, 1+ protein, negative sugar, moderate ketones and 3-5 erythrocytes HPF. Hemoglobin was 16.5 gm%, hematocrit 53.5%, white blood count 20,500. Serum protein concentration was 9.0 gm%, calcium 9.6 mgm%, alkaline phosphatase 61 IU, amylase 105 Somogyi units and glutamic oxalacetic transaminase 32 Karmen units. Other values are recorded in Table 1.

On admission one dose of Pro-Banthine (propantheline bromide) 7.5 mgm was given orally, intravenous infusion of dextrose was continued, Keflin (sodium cephalothin) Kana-

TABLE 1.—Blood Chemistries

	DAY OF ADMISSION			SECOND DAY						THIRD DAY			
	7:45	1:30	5:40	8:15	3:00	3:30	5:15	8:30	2:20	1:30	9:00	8:30	
	AM	PM	PM	PM	AM	AM	AM	AM	PM	PM	PM	AM	
Glucose	141	40	201	300	193								132 mgm 100 ml
BUN			22	23	33					12			70 mgm 100 ml
Sodium			140	134	140			137		115			136 mEq liter
Potassium			3.7	5.2	5.5			1.9		1.3			2.0 mEq liter
Chloride			96	93	97			93		96			89 mEq liter
CO ₂ (v)			5	5	6			10		7			31 mEq liter
pH (a)							6.90	7.09	7.21	7.30	7.40	7.52	
CO ₂ (a)*							1.2	5.8	8.5	9.6	11.5	28.8 mEq liter	
pCO ₂ (a)							19.3	18	19	19	23	35 mm Hg	
Acetone				neg									
Lactic acid										152			mgm 100 ml
Pyruvic acid										4.7			mgm/100 ml
Sodium bicarbonate													
(each arrow = 45 mEq)													

CARDIAC ARREST

*—derived values v—venous blood a—arterial blood

mycin, and Solucortef (hydrocortisone sodium succinate) were given by intravenous bolus. By midnight blood pressure of 60/30, pulse 100 per minute, respirations 28 per minute were being recorded, and at 3:30 AM no heart beat was detected. Intracardiac adrenalin and intravenous Isuprel (isoproterenol) drip resulted in a systolic blood pressure of 60. Lidocaine drip was instituted for frequent bifocal premature ventricular contractions. Respiratory assistance was also necessary via endotracheal tube for three hours.

The Isuprel infusion was changed to Aramine (metaraminol), which became no longer necessary as the acidosis was corrected by sodium bicarbonate administration. By 48 hours after the cardiac arrest, the patient was responsive and by the following day he was placed on oral intake. On the eleventh hospital day, he was discharged home.

Comment

The patient was initially treated vigorously with 100 ml of 50% glucose when a blood sugar of 40 mgm% was reported. Although the patient's agitation and complaints of abdominal pain diminished, he remained obviously ill. The presence of metabolic acidosis was not detected until his arrival on the hospital floor, when a carbon dioxide content of 5 mEq/liter was reported. This points out the importance of considering metabolic acidosis as a concomitant occurrence with hypoglycemia.

Although hypoglycemia does not usually occur with phenformin unless massive doses are ingested, the patient had fasted for at least 18 hours prior to his arrival in the emergency room which may have contributed to the development of hypoglycemia.

Blood determinations for lactic acid were not done before the cardiac arrest, so that lactic acidosis on admission can only be presumed. However, there is no other adequate explanation for the severe metabolic acidosis on admission, which was associated with an anion gap of 39 mEq/liter. We believe that Oliva's statement that "severe lactic acidosis of any cause leads to circulatory insufficiency which begets lactic acidosis"⁶ can be appropriately applied in this case.

The role of phenformin, in spite of many reports implicating phenformin in lactic acidosis, continues to be controversial. The interesting aspect in our case was the recent substitution of DBI-TD for diabinase which he has been taking for years. An overdose, intentional or not, is doubted since there is no history of suicidal attempts by our patient, who had a long history of faithful adherence to medical advice. Having been dispensed 100 tablets when placed on DBI-TD, he would have had less than 20 tablets left when the acute episode of hypoglycemia and metabolic acidosis occurred.

The cardiac arrest was probably related to the inadequately treated metabolic acidosis, having occurred after three hours of progressive hypotension and persistence of severe acidosis documented a half-hour prior to the cardiac arrest. Fortunately, therapy became much more aggressive after this emergency, and he eventually recovered.

Lactic acidosis associated with phenformin therapy is usually fatal, but there is suggestive evidence that when hypoglycemia accompanies this situation, the outcome is less likely to be lethal. It may be that hypoglycemia-associated lactic acidosis may be different etiologically from the lactic acidosis that is not associated with hypoglycemia, or that the intensive glucose

therapy administered for hypoglycemia may favorably affect the outcome of lactic acidosis.

Summary

Hypoglycemia and severe metabolic acidosis

occurred in a diabetic on phenformin therapy. The hypoglycemia was treated vigorously before the acidosis was discovered. In spite of cardiac arrest, the patient recovered. The initial glucose therapy may have influenced the favorable outcome.

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The Hawaii Medical Association and PSRO

January 1, 1974, the Hawaii Foundation for Medical Care will start functioning as the Professional Standards Review Organization for the State of Hawaii, if approved by HEW. Only performance satisfactory to the Secretary of HEW will allow the Foundation to continue in this role.

Nobody really knows what "satisfactory performance" means, because the rules of the game are not all written and mechanisms of determining such standards as the "outcome of care" are not even devised. The organization with the most profiles of doctors, institutions, and patients in the state is HMSA. Their capability and support is critical to any organization seeking to function as a PSRO.

There are other organizations whose interest, resources, capabilities, and support we must

obtain to succeed. Part of succeeding as a PSRO will be to convince the Hawaii Hospital Association, Health and Community Services Council, Comprehensive Health Planning, Hawaii Medical Services Association, the Board of Health, Regional Medical Program (RMP), Aetna (the Medicare intermediary), and the schools of Medicine and Public Health, that the physicians of this state are doing everything possible to make the law work. Let us hope that the foundation can involve many if not all of these organizations, so that if the scheme fails we physicians will not be blamed. The government has dumped a fearful burden in our laps.

If we fail, let it never be said that we didn't try. Let it be said that the law failed because it was unworkable as written.

JAMA Gets a New Editor: Robert H. Moser, M.D.

Dr. Robert H. Moser of the Maui Medical Group in Wailuku (JAMA's October 1 announcement called them the "Maui Clinic, Hawaii"!) became the editor of the Journal of the American Medical Association on October 1, 1973, succeeding Hugh H. Hussey, who will remain with AMA as Editor Emeritus, and will have additional duties relating to AMA's scientific activities.

Dr. Moser is highly qualified for the position. A distinguished internist and medical columnist ("Of Tomes and Topics" and "Ruminations"), book-review editor of the Archives of Internal Medicine, contributing editor of the *Hawaii Medical Journal*, and a member of AMA's Council on Drugs, he will bring both medical expertise and scholarship to his new job. We expect well of him!

Surgical Pediatrics

By Stephen L. Gans, M.D., \$19.50, Grune & Stratton, 1973.

There are many textbooks of pediatrics and several on pediatric surgery, but *Surgical Pediatrics* manages to neither emulate nor duplicate them. As is alluded to by its title, it attempts to cover the more surgical aspects of pediatrics and the more "medical" aspects of surgery—something that heretofore has been lacking in the physician's library. It is not a textbook of pediatric surgical lesions and technique.

Chapter topics are well chosen for emphasis. Those on temperature maintenance, intravenous therapy and physiologic monitoring are very well written and sufficiently detailed to be of interest to those specializing in the field. Many chapters are simply written and generally descriptive so that the book would also be of benefit to any who may be involved in the care of the pediatric surgical patient including house officers.

The portions of this book which deal with the surgeon's relationship to the child's family and his handling of both the dying child and his family must be read to be appreciated. They are masterfully executed by a distinguished pediatric surgeon of long experience. The relationship of genetics and malformations is superbly stated in a well organized format, and could be recommended to both student and specialist.

This work is of high caliber and recommended for any who care for infants and children needing surgery.

WALTON K.T. SHIM, M.D.

Good Scientific Writing

By C.G. Roland, 254 pp., AMA Publications, Chicago, 1971.

This paperback is a sequel and extension to *Scientific Writing* by C.G. Roland and Lester King. It defines scientific writing and emphasizes that it can be *literary* and thereby more clearly express what the writer desires to say.

As in *Scientific Writing*, the author cautions against faults and errors: the non-sentence, the incorrect subject reference, the use of faulty logic, redundancy, overuse of the passive voice, and boring repetitiveness of sentence structure. Roland urges the reader (or writer) to learn the art of writing by writing.

The book is an anthology of superior scientific articles. These demonstrate the impact of a paper in which the author's case is personalized by using "I". Direct style, variation in sentence length, minimal statistical reference and precision are all displayed. The article with the most verve and suspense is one by Fuller Albright, written in 1948 for the *Journal of Endocrinology*, in which he cleverly weaves the story of hyperparathyroidism, its discovery, diagnosis, and treatment. This shows that a truly great investigator can write in a *literary* way. Another selection is Leo Buerger's description of thromboangiitis obliterans, just as poignant and evocative today as when he wrote it in 1908. Other outstanding selections are by authors like Medawar, F.M.R. Walshe, Pauling, and Asher, and come from such journals as *Lancet*, *Nature*, the *J.A.M.A.*, and the *Scientific American*.

This little book can prick the writer in a physician and is handy for any doctor who wants to create something out of words.

CHARLES S. JUDD, JR., M.D.

★ means highly recommended.

*Dyslexia: Problems of Reading Disabilities

By Herman K. Goldberg, M.D. and Gilbert B. Schiffman, Ed.D. 194 pp., \$8.75, Grune and Stratton, 1972.

An ophthalmologist and an educator have combined talents in this really excellent account of the problem of dyslexia. The book opens with a fascinating case study of a boy with a marked reading disability and the confused and contradictory diagnostic and remedial help given him by psychiatrists, psychologists, educators, neurologists, surgeons, and ophthalmologists. Although dyslexia has been thoroughly studied, the authors point out the scarcity of cooperative research and that each field has a special theoretical ax to grind.

In recommending a multi-professional attack on dyslexia the authors offer brief but meaty chapters on the importance of a good psychological evaluation, careful psychiatric study, and neurological assessment, as well as visual and auditory examinations. Additional chapters of considerable interest are concerned with dominance in reading disability, the genetics of reading disorders, the use of drug therapy, and remedial efforts. Since current estimates indicate that there are approximately 24 million functional illiterates in the United States, this book is well worth studying and adding to one's professional library.

JAMES M. DENNY, PH.D.

*Acupuncture Therapy

By Mary Austin, \$12.50, A.S.I. Publishers, Inc., New York, 1972.

Since the current spate of interest in Chinese medicine, a continuous flood of articles, reviews, and books about acupuncture surges around us like a modern version of the ancient Chinese water torture. Western opinion about acupuncture varies from the no-nonsense "it's just hypnosis" school to the cautious "there's something to it which must be explainable on a neurophysiological basis" approach. Unfortunately, neither of these views is correct, so if you want to try acupuncture in your practice (it really works, you know), you must use the cookbook and recipe method of diagnosis and treatment. This means finding a reliable cookbook. *Acupuncture Therapy* by Dr. Austin is such a book.

Moderately expensive, at \$12.50, it contains (in addition to many recipes) some philosophical physiology and an occasional flash of humor. It is recommended for the neophyte, ie, anybody who can't read the writings in the original Chinese.

W.P. JONES, M.D.

A Synopsis of Contemporary Psychiatry, 5th Ed.

By George A. Wett, 367 pp., \$10.90, C.V. Mosby Co., 1972.

This synopsis is geared toward those needing an introduction or brief review. Namely, beginning medical students and/or nurses. There are marked limitations if the book is to be used by busy general physicians, especially where useful guidelines are needed immediately. For example, the section on suicidal management could have included assessing and evaluating the suicidal risk. If this is to be a review for professional examinations, it would be helpful for those outside of the field of psychiatry. A useful and valuable section is to be found in the suggested readings.

BENJAMIN B.C. YOUNG, M.D.

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Hawaii Medical Association

HAWAII MEDICAL JOURNAL

COUNCIL MEETING Friday, July 13, 1973—5:00 P.M. Mabel Smyth Lanai

CALL TO ORDER

The meeting was called to order by President Thomas P. Frissell. Present were Drs. Winfred Y. Lee, William E. Iaconetti, R. Varian Sloan, Grover H. Batten, Herbert Y.H. Chinn, George Goto, J.I.F. Reppun, Douglas B. Bell II, Ann B. Catts, William F. Moore, Henry Oyama, Patrick Walsh, Sakae Uehara, Peter Kim, William W.L. Dang, John Withers, DeWitt H. Smith, and Calvin C.J. Sia, Fred I. Gilbert, and Mr. V. Thomas Rice.

ELECTION OF COMMUNITY RESEARCH BUREAU

The Council recessed to hold the annual meeting of the Community Research Bureau which was called to order by President B. Allen Richardson. The officers of the Bureau were elected as follows: B. Allen Richardson, President; Theodore T. Tomita, Vice-President; O.D. Pinkerton, Secretary; and Grover H. Batten, Treasurer. Trustees are Drs. Frissell, Lee, Iaconetti, Chinn, Lowrey, Mills, Dang, Berry, Withers, and Smith.

MINUTES

The minutes of the March 30, 1973, meeting were approved as circulated.

SECRETARY'S REPORT

The secretary's report was approved as circulated.

TREASURER'S REPORT

The Council reviewed the financial statement for the month of June. Dr. Batten reported that letters had been sent to all contributors of the Physicians Benevolent Fund asking for their comments on the use of the PBF as an investment fund. There were fourteen negative responses asking for the return of their contribution. This will reduce the Fund by \$680. Mr. Rice was asked to again clarify the status of the fund and any technicalities that may be involved in the use of the fund for investment purposes. Mr. Rice stated that he has reviewed the file and it is his opinion that these funds are unsegregated funds held by HMA and can be used for any purpose that does not violate HMA's corporate (C-6) status. The Finance Committee will proceed with their analysis of investment possibilities. Dr. Batten also reported that HMA assessment notices have been mailed and urged the counties to transmit the funds as they are received.

REPORTS OF THE COMMITTEES AND COMMISSIONS:

A. Commission on Public Health: Dr. Sia briefly reported on the activities of each committee under the Public Health Commission. The Communicable Disease Committee endorsed the proposed TB regulations which allow tuberculin skin tests in lieu of chest films in older individuals. The NCI Site Visit planned for August was discussed by the Cancer Committee. Substance Abuse Committee is reviewing new regulations regarding drugs and dispensing policies. Chronic Illness Committee is concerned about hypertension, diabetes and the chronically ill who are presently in state institutions. The School Health Committee plans a seminar on the Medical Aspects of Learning Disabilities to be held in cooperation with the Department of Education on August 6-8. A copy of Dr. Sia's letter to Dr. Quisenberry regarding the use of Pediatric Nurse Practitioners in the EPSDT pro-

gram was circulated. Dr. Sia feels the PNP have not yet developed skills to a degree which will allow them to function alone.

ACTION:

It was voted to send a letter to Dr. Quisenberry supporting Dr. Sia's position.

B. Commission on Health Service and Care: Dr. Gilbert reported that a planning committee of the Pacific Institute of Rehabilitation has been formed to develop long-range plans for the PIRM. With preparations beginning for the move of Children's Hospital to Kapiolani there are thoughts that a centralization of rehabilitation facilities might be desirable. Dr. Gilbert was requested to follow this matter.

C. HMA/HMSA Medicaid Proposal: Dr. Iaconetti reported that the Ad Hoc Committee met with HMSA representatives and have prepared the final draft of the proposal for the consideration of the Council. HMA Officers also reviewed the proposal and have given their tentative approval. There were many questions on the proposal. The Council was asked to clearly delineate objections and allow the Ad Hoc Committee to again meet with HMSA to work out another draft of the proposal.

ACTION:

The Ad Hoc Committee was requested to continue to work out an agreement between HMA and HMSA based on the discussions of the Council meeting and present the proposal at the next Council meeting.

D. Elected committees: Ballots were circulated listing nominees for members of the Finance Committee and Bureau of Research and Planning. There were no nominees from the floor.

ACTION:

Drs. William Dang, William Hindle, and Elmer Johnson were elected as members of the Finance Committee.

ACTION:

Dr. Fred Reppun was elected as chairman of the Bureau of Research and Planning; Drs. Claude V. Caver, Lawrence Gordon, and John F. Morris were also elected for three-year terms.

E. Cancer Research Center: Dr. Chinn presented a progress report and noted that site visitors are expected in Honolulu on August 27. He reported that a letter of intent has been submitted to Washington for construction funds for the Center. Dr. Grover Batten represents HMA on the building task force. The Council discussed the entire project including the sponsorship of the project, the use of community hospitals for diagnosis and treatment of cancer patients, the desirability for construction funds, and the pending site visit.

ACTION:

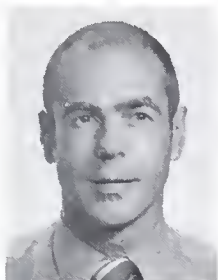
It was voted to go on record as favoring a Center that is community based, that the clinical work be done in the community hospitals, and that a small central headquarters for administrative purposes be obtained. It was further voted that Dr. Frissell and HMA officers meet with the NCI Site Visitors as directed by the Council.

F. Emergency Medical Services: Dr. Livingston Wong reported on the current status of the EMS Project. He reported that the Site Visitors from Washington were favorably impressed with the project.

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New Members

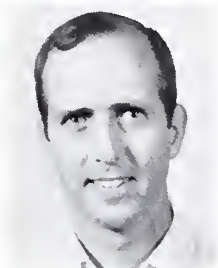
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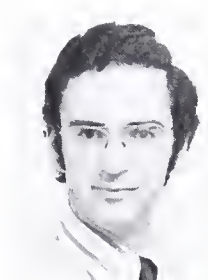
Katsuji Kubo, M.D.
550 South Beretania Street
Honolulu, Hawaii 96813
PLASTIC & RECONSTRUCTIVE
SURGERY



Ernest Kim Hung Lee, M.D.
1441 Kapiolani Boulevard
Honolulu, Hawaii 96814
INTERNAL MEDICINE



Shun-Kwung Liao, M.D.
1301 Punchbowl Street
Honolulu, Hawaii 96813
GENERAL SURGERY



Carl Morton, M.D.
888 S. King Street
Honolulu, Hawaii 96813
OB-GYN



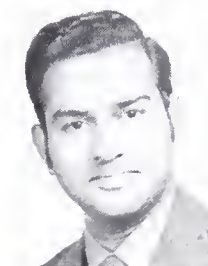
Roy N. Niimi, M.D.
2055 N. King Street
Honolulu, Hawaii 96819
PEDIATRICS



Edwin T. Nishimura, M.D.
1960 East-West Road
Honolulu, Hawaii 96822
PATHOLOGY



Hoon Park, M.D.
180 Kinooles Street
Hilo, Hawaii 96720
PEDIATRICS



M. Raja Sekaran, M.D.
1697 Ala Moana Boulevard
Honolulu, Hawaii 96815
UROLOGY



John O. Wagner, M.D.
1133 Punchbowl Street
Honolulu, Hawaii 96813
CARDIOLOGY

Life in These Parts

The HMA gets a lot of kooky requests. **Jon Won** had had a phone call inquiring about a good hypnotist. When he cornered **Harry Arnold, Jr.** and myself in the parking lot walking back to our cars from a Queen's medical conference, we related how at a recent Medicare review meeting the committee had authorized payment to an MD hypnotist who had successfully alleviated the pain in a terminal cancer patient with intractable pain... **Harry Arnold** recalled the desperate case of a Majuro administrator's wife with a 4 inch fungating wart of her foot for which doctors had recommended amputation of her foot as a final measure. **Harry** sent her to pediatrician-hypnotist **Duke Choy** who cured the wart in 2 weeks and saved her foot from amputation. **Harry** claims that hypnosis is the only mode of wart therapy which has statistical proof of cure.... **Jon** went away happy and convinced...

A Filipino man, a recent emigre, had been sent to the Path Associates lab for a sperm count... The haole woman technician, also a recent emigre from the mainland, had tried valiantly without success to explain the nature of the specimen she needed... In desperation, she called in a Filipino male orderly for help... The orderly using fluent Pidgin and suggestive gestures got the message across... The man brightened and smiling broadly, exclaimed, "Oh, you mean 'Love Juice'.... Why you no say so..." and promptly donated an adequate specimen. (As related by **Arturo Salcedo**.)

With graphite golf shafts now the vogue, **Frank Fukunaga**, who buys a new putter every month, was strangely undecided as to the specifications he wanted... At the Mid Pac 10th Hole, he spied **Catalino Cachero** with a new graphite driver and asked, "What's your stiffness and head size?" Our irrepressible humorist replied, "Mine is a stiff shaft with a small head... Care to see it?" and reached for his....

Aphorisms

(By **William Nelson**, Chief of Cardiology, Fitzsimons Army Medical Center during a Queen's Medical Conference on "Confusing Arrhythmias—Dx and Rx")

"The first commandment is: Thou shalt not overread the electrocardiogram."... "If you don't know what it means, say so... It's good for the soul."... "Beware the treacherous technician."... "Re T wave changes: 'T' stands for treachery."... "Stone walls do not a prison make; Nor iron bars a cage".... "All Q's do not an infarct make; Nor funny T's an abnormality".... "Be cautious of the capricious patient."... "The machines and technicians are trying to do us in."... "The partnership of an EKG and an unskilled or overconfident interpreter can be a threat to life and limb."

Conference Notes

During a Queen's medical conference on FUO's, **Richard Frankel** discussed bacteriodes bacteremia as one of the causes and confessed, "My own antibiotics of choice in a life threatening situation would be Chloromycetin... If not life threatening, then Cleocin..." Whereupon **Harry Arnold, Jr.** added, "It is interesting that there have been recent reports of Cleocin causing leukopenia and aplastic anemia..."

Dick Frankel then reviewed how the choice of antibiotics for bacteriodes has changed. Before 1950, penicillin was the

drug of choice; between 1950 and the 60's, first tetracycline and then erythromycin; and since the 1960's, Chloromycetin and more recently clindomycin..."

Miscellany

A nun refused to go to the dry cleaners because she didn't have dirty habits... (Our apologies to the SFH sisters... **Tom Thorson's** repertoire)

An architect, an attorney, and a doctor were arguing about which profession required the most smarts... The wily attorney suggested that each should train a dog to prove who was the smartest... After a month of secret training, they gathered one day for the demonstration... They set up three separate piles of bones... The doctor, eager to show off his dog, urged, "Come on, Stethoscope, let's show 'em!" Stethoscope tackled the first pile of bones and within a short time had arranged the bones in the form of a human skeleton... The architect looked on with disdain and called to his dog, "Go T-Square, show your stuff!" T-Square worked on the second pile of bones and arranged a beautiful abstract design... The lawyer smiled slyly and whispered, "Loop-Hole, Go get 'em!" Loop-Hole quickly screwed both dogs and ate up all the bones... (**Tom Leinweber's** repertoire)

Sportsmen

Fishermen: We met sports fisherman **Ray Chock** beaming happily, just oozing with something to tell, so we asked, "Catch anything recently?" Ray broke out with a 'I'm So Glad You Asked' smile and reached for his wallet where carefully preserved was a color photo proof of his most recent catch, a 31-pound Kahala, caught one weekend in May while lazily trolling in 6 feet of water inside of Chinaman's Hat with 10-lb. test line in a small Sears Roebuck dinghy... As Ray described his 1½ hour epic battle with his Kahala, we could recall scenes from the Hemingway book, "The Old Man and the Sea"...

Golfers:

Quint Uy enviously describes **Herman Mercado** as "The Scratch Golfer with an 11-Handicap." Recently Herman shot a gross 77 at Makaha West using his No. 1 iron to drive.... We recall a similar feat at Kuilima when Herman was tournament winner without using his woods...

Mid Pac Thursday Club: When he was president, **Frank Fukunaga** had decreed that no member could win a monthly club trophy more than once a year, but new president **Dick Omura** rescinded this rule (as is his right and prerogative). Frank not to miss such an opportunity recently won both the May and June trophies and the **Herb Takaki** donated silver platter to boot... Fair is fair, we say... Others scoring high were **Ike Nadamoto**, **Alan Luning**, **Herb Takaki**, **Mike Okihiro**, **H. Yokoyama**, **Ed Emura** and **Art Salcedo**...

Mid Pac Wednesday Club: President **Henry Yim** announced that there were no tournaments during the summer months....

Daffynition?

A loser: A woman who puts her bra on backwards and it fits.

A winner: A man who asks her to dance...

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Life in These Parts

Missionary descendant **Charlie Judd**, one of the stalwarts on the Wm. Ellis Expedition II, wore a pair of hiking boots under his hospital smock for two months in preparation. Charlie explained, "It's the only way to break in a new pair of boots for hiking over the lava. On a rugged walk like this, blisters are the biggest problem. That's why comfortable shoes are very important."

Milton Howell of Hana had proposed over a year ago that Maui county hire artificial rainmakers during a drought, and county officials had scoffed at the idea. Now with another drought, the idea is being considered seriously as relief to the stricken communities on the slopes of Haleakala...

Gleaned from Donnelly's column: "Art dealer **Barney Davis**, now recouping from surgery at the hands of **Dr. Caesar DeJesus**, is telling friends that his doctor's name 'gave me a little of the needed assurance that I was at least headed in the right direction.'"

The headline read: "UH Regent Chang Gets 'The Point.'" **Clarence Chang** was treated for a 30-year-old insomnia during an acupuncture demonstration by Taiwan's **Wu Weiping** and next day claimed enthusiastically that he had enjoyed the best night's sleep in years...

It seems that a man pretending to be a physician has been taking a telephone survey of sex life, presumably for the Masters and Johnson Clinic... HMA exec secretary **Tom Thorson** has received 30 to 40 calls from irate women about the phony calls...

Honolulu physicians could become paranoid listening to the likes of **Mrs. Robert (Ah Quon) McElrath**, an Aloha Fund director. Speaking to a group of the Big Island United Fund drive at the South Hilo Rotary Club, she said, "As to people who don't give, I don't know why.... For instance, the doctors on Oahu have the lowest giving rate as a group.... Lawyers, I think, are next...." Then along comes a State Agriculture Director named **Frederick Erskine**, of the Hawaii Land Board's Pasture Advisory Committee, who opposed a proposal by Big Island ranchers to further subdivide 12 existing lease parcels into smaller ones, with the crack: "Wealthy Honolulu doctors would pay large sums and then use the land for one or two horses instead of cattle production."

Milton Diamond's ETV series on human sexuality may be used by three major communications and population organizations: viz., the Public Broadcasting System, International Planned Parenthood and the Ford Foundation. The program consists of 30 half-hour discussions which were telecast locally from January 21 to May 10.

Spark Matsunaga and other House members introduced legislation in April extending twelve major Federal health programs for one year, thus granting a reprieve to our state-wide Emergency Medical Services Program, the Pediatric Pulmonary Center at Children's Hospital, the coronary care centers in several island hospitals and to some Hill-Burton hospital construction programs...

Personal Glimpses

Herb Takaki, who practices full-time and hits that golf ball like a 30-year-old, is 72, and defies all the sacred precepts of health... He chain-smokes 4 to 5 packs a day, drinks at least 10 cups of coffee with cream and sugar, and has a daily giant scoop of vanilla ice cream, which he says is essential for energy. Otherwise, he claims to adhere to a low-starch, low-fat diet...

Proctologist **Dick Omura** was making rounds one day at St. Francis Hospital and **Les Vasconcellos** saw him reach in his pocket for a pen to write in the chart and pulled out a thermometer instead... "Damn, that last patient has my ball-point pen stuck in him." (As told by **Tom Thorson**)

"It has been claimed that dermatologists are the best-

natured of all the medical practitioners... And claimed further whimsically, 'That's because they're required to treat warts.' Such practice keeps them humble, thus prevents pomposity and so preserves their sense of humor. Personally, I think what contributes as much as anything to their pleasant personalities is their office hours, the most regular in medicine." (From "Just Checking," by **lou boyd**)

Hawaii now has two delegates to the HMA. **George Mills** was appointed to the Judicial Council of the AMA in June and more recently **Harry Arnold Jr.** was moved up from alternate delegate to delegate from the AMA's Section for Dermatology...

Neurosurgeon **Maurice Silver** wishes us to announce that he now has privileges reinstated at Castle and Kuakini Hospitals...

Retiring, amiable, Christian, **Jun-Chuan "Tad" Wang**, who is a physicist turned radiologist, is now planning yet another career: viz., that of a medical missionary. Tad and his wife, Mabel, have closed shop at 1481 S. King and after a two-month refresher session in general medicine, will join **Will Kirker** in Niger where they will spend the next 2 or 3 years...

When ill, we characteristically turn to our colleagues to relate our aches and pains for the lay sincerely believe that we are some sort of demigods who are above getting ill... We recently met **Garth Morimoto** looking positively ill and exchanged condolences... We related how we had myalgia, arthralgia, malaise and diarrhea over the last weekend and Garth explained, "I've had chills, headaches, a sore throat and feel just miserable... I even had a throat culture taken." "That's great academic medicine... Naturally, you wouldn't think of starting antibiotics until the cultures are back," we coaxed facetiously. "Heck no! Of course I'm on antibiotics... I ain't waiting," came the frank reply...

At a WCC luncheon of the HMA Skin Diving Tournament directors, the conversation drifted to gout. **Ted Tseu** admitted to uric acid levels of 11 and 12 mg% and **Herb Uemura** stated that he had no symptoms even though his ran around 11 mg%. We related how we've been on Colbenemid for many years, even though our level was a lowly 9mg%, because we would develop bilateral tennis elbows... Ted stated, "I used to get generalized stiffness the day after tennis till I started medication." Herb, who had been having generalized stiffness the morning after 5 sets of tennis, was enlightened, "Maybe I should start taking medication too."

We listened to our Sumo-announcing neuropathologist, **Hideki Namiki**, on KZOO radio during an HMA-sponsored Japanese medical program, comment that we all imagine illnesses commensurate with our knowledge of diseases. He proudly admitted, "Being a pathologist, I myself have imagined having had all kinds of diseases."

This reminds us of yet another pathologist, **Frank Fukunaga**, who complained one day, "I've been feeling tired recently... I wonder if I'm coming down with hepatitis again," and proceeded to shoot a gross 75 at MidPac one Thursday afternoon.

Cas Jasinski recently took his boards in Aerospace Medicine in Las Vegas, the gambling capital. **Doris** says, "It was a gamble" but he apparently beat the odds."

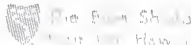
Professional Moves

This is the Year of Flux in our medical community, for seldom have we encountered so much change. Back in March, we missed a few more announcements: ObGyn man **Songritt Chong** locating at 1300 Pali Hwy. and internist **Kenneth Robert Hughes** at 100 Pauahi Street (American Savings Building). We also missed these May announcements: internist **Ed Yamada** joined the Central Medical Clinic at 1481 S. King St.; on Maui, ObGyn man **E. Duane Beringer** joined **Wolfgang Pfaltzer** at Kahului and Lahaina; on Hawaii, psychiatrist **C. Stanard Smith, Jr.** located at 201 Kinoole Street, Hilo and psychiatrist **Audrey Mertz**, medical

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Physician's Report of Services Rendered

HAWAII MEDICAL SERVICE ASSOCIATION



MEMBERSHIP NUMBER 654023	COV. 7 04	PATIENT'S FIRST NAME Mary	CHECK ONE 3 ADULT 4 ADULT 7 CHILD 8 PREG	MO 7	DAY 1	YEAR 72	MO 7	DAY 4	YEAR 72
SUBSCRIBER'S NAME John Smith		PHYSICIAN'S NAME N. E. Doktor, M.D.		PROVIDER NO. 0002		IF FEDERAL BLUE SHIELD - BLUE CROSS PLAN FILL IN STATE ZIP CODE			

OTHER MEDICAL COVERAGE? <input type="checkbox"/> YES <input type="checkbox"/> NO	NAME OF CARRIER F-11	DATE 7/4/72	PLACED WORKMEN'S COMPENSATION YES
PATIENT'S COMPLAINT Suture of laceration	DATE OF ONSET 7/4	DIAGNOSIS 7/4	NAME OF HOSPITAL
SURGICAL PROCEDURE (USE REVERSE SIDE)	PATIENT		

OFFICE VISIT <input type="checkbox"/> CHECK IF NEW PATIENT	7/10/72	<p>We know you'll feel a lot better when your bills get paid promptly. You can get fast service from HMSA if you submit your claims promptly. It will not only keep your accounts current, the cash flow situation in your office will be a lot healthier.</p> <p>HMSA, Hawaii's largest non-profit medical plan, goes a long way in easing the pains of financial worry. And we do a better job because of your help.</p>
HOSPITAL VISIT		
LABORATORY (Itemize)	7/10/72	
X-RAYS (NO. OF VIEWS) (Itemize)		
IMMUNIZATIONS (Itemize)	90700	
DRUG	99900	<p>PAID</p>
INJECTION	99980	
TAX	99982	
LESS PAID BY PATIENT		

REMARKS: I CERTIFY THAT THE PROFESSIONAL SERVICES SHOWN ON THIS STATEMENT WERE RENDERED BY ME, THAT I AM A MEMBER OF HMSA, AND NO PAYMENTS HAVE BEEN RECEIVED, EXCEPT AS NOTED.

N. E. Doktor, M.D. 7/10/72
DOCTOR'S SIGNATURE DATE



Hawaii Medical Service Association

administrator of the Hawaii State Hospital became the Big Island's first woman district health officer. In June, **Herbert K.N. Luke** joined the Occupational Medicine and Surgery Inc. at 1481 S. King; ObGyn man **Bunzo Nakagawa** joined the Medical Arts Clinic, Inc., in Wahiawa and Pearl City; internist **Adelina DeSouza Matsui** joined the Windward Medical Center at 407 Uluniu, Kailua, and **Benjamin Lee Gordon**, former assistant professor of pediatrics and pathology at the University of British Columbia was appointed the new director of Kuakini Medical Research Institute.

July saw even greater changes: Internist **Roger Ogata** relocated to 2525 S. King; internists **Max G. Botticelli** and **Christian Lyder Gulbrandsen** located at Rm. 100, Harkness Pavilion; cardiologist **Ernest K.H. Lee** associated with Internist Clinic, Inc. at 1441 Kapiolani Blvd.; internist **Gladys C. Fryer** located at 4747 Kilauea Avenue; ENT man **Gene Doo**, left the Medical Group and joined fellow ENT men **John Watson** and **Kazuo Teruya** at the Hawaii Ear, Nose and Throat Group, Ltd., Alex Young Building; and another ENT man **Ronald Peroff** joined the Honolulu Medical Group at 1133 Punchbowl Street. Dermatologist **William J. Sahl, Jr.** associated with Windward Medical Center at 407 Uluniu, Kailua; general surgeon **Shun-Kwung Liao** associated with **Judson McNamara** at Harkness Pavilion, Queen's Medical Center; and internist **Winifred P. Pumphrey** associated with the Fronk Clinic. In Hilo, GP **E.L. Bade** and pediatrician **Steward Van Hoosear** joined the Hilo Medical Group, Inc. and orthoped **Robert D. Irvine** located at 140 Haili St. The Kauai Medical Group expanded with the addition of ENT man **H. Roger Netzer**, internist **Michael S. Levine**, pediatrician **Arnold B. Nurock** and orthoped **Thomas B. Grollman**. On Maui allergist **Joe Harrison** joined the Maui Medical Group at Wailuku and Lahaina.

The flux continued into August: **George Tyau** relocated to 1350 S. King and pediatrician **Stephen Tenby** left Straub and opened at Suite 205, Kahala Office Center. Meanwhile the Straub Clinic acquired two Shimoda's; **James A. Shimoda** and **Stanley S. Shimoda**. **Irvin Tilden**, Straub pathologist for 32 years, retired and moved to Kula, Maui. Gastroenterologist **Gary Globber** opened his office at Harkness Pavilion, Suite 106, Queen's Medical Center, and will continue his work at Kuakini with the Japan-Hawaii Cancer Study. Internist **Leoncio deJoya** associated with **Richard Lam**; pediatrician **Joseph Young** associated with the Chock-Pang Clinic; and plastic surgeon **Katsuji Kubo** joined the Honolulu Medical Group. Pediatrician **Mitsuaki Suzuki** joined the Pearl City Medical Associates, Inc.; another pediatrician, **Roy N. Niimi**, joined the Kalihi Medical Center, Inc.; and still another pediatrician **Ralph W. Higer**, associated with **Robert G. Dimler** in Kailua. Plastic surgeon **Leabert Fernandez** relocated to One Kapiolani Blvd., Suite 109, and general surgeon **Rodriges G. Bristol**, associated with **Marcelino Avedilla** at 1280 Queen Emma St. On Maui, **Michael J. McDonald** relocated to 95 Lono Ave., Kahului. On Hawaii, pediatrician **Hoon Park** located at Hilo Plaza, 180 Kinooole St., Hilo; general surgeon **Desmond Wong** joined the Hilo Medical Group, Inc.; and eye man **Gerrit R. Ludwig** opened at 120 Pauahi St.

Miscellany

(By our architect friend, **Dick Dennis**)

"Confucius says, 'Man with hole in pocket, feel cocky all day.'"

The best oral contraceptive is the word "No".

Sportsmen

At the 14th Annual Medical Arts Golf Tournament (at MidPac CC Aug. 2); the conditions were ideal—the weather balmy with isolated morning showers, the fairways lush, the

greens true and the winds a mild trade... Never had a tournament run so efficiently and on-schedule for tournament chairman **Arturo Salcedo** was at the helm and he had old tournament hands such as **Catalino Cachero**, **Frank Fukunaga**, **Don Maruyama**, **Dick Omura**, **Ike Nadamoto** and **Dick Lam** as aide-de-camps... Only **Cool Wakai's** Calcutta was missing.

When the scores were finally tallied, the winners of the Medical Arts Flight were our Ben Hogan disciple **Nobu Nakasone** and **Don Maruyama** tied with net 67's. At the banquet, before the cards were cut, we overheard Don remark, "Remember Nobu, the winner will run the tournament next year, right?" Don cleverly drew a lower card... "Always a bridesmaid" it seems, but Don is happy because the tournament winner traditionally runs the tournament the following year at considerable expenditure of time and effort. Nevertheless, Nobu was happy to win the \$125 gift certificate, the Koa Bowl and the privilege of keeping the perpetual Sakimoto silver trophy for a year. Chairman Arturo reminded Nobu, "Now, be sure to have your name engraved and have your wife polish the bowl before returning it next year." So 2nd place winner Don smiled contentedly with the \$100 gift certificate and wiped his perspiring brow at the close call. Don should have been more subtle like our suave calculating golfer **Ed Izawa**, who deliberately threw two drives O.B. on the 15th when he realized that he was shooting too well and might win the unenviable tournament chairmanship... Even with his two OB's, Ed still netted a 68 for 3rd place. In 4th place was **Y. Fukushima** and in 5th was **Hideo Oshiro**. **Roy Iritani** was in 8th place.

In Guest Flight, the net scores were lower, but physicians fared rather poorly this year. **Dick Lam** and **Mike Okihira** were tied in 4th place with 3 others with net 69 and at 9th place with a net 70 was **Ed Kagihara** and in 10th, good ol' juicer, **Joe Nishimoto**...

Holes-In-One

July 28, a Saturday, was a fateful day at MidPac CC. The news spread like wildfire from foursome to foursome and we had already heard the glad tidings from **Henry Yim**, playing in the foursome ahead, that **Tom Kobara** had made a hole-in-one on the 4th. Sure enough, as we came down the 5th hole we heard a jubilant shout from the 6th hole green, "Henry! I got a hole-in-one!" and there we spied **Tom Kobara** with putter raised on high and never so happy, never so exhilarant... Tom and partner were playing against **Cliff Kobayashi** and **Y. Fukushima** and had hit a perfect 5 wood and the ball had landed, hopped, skipped, and rolled "kerplunk" into the hole. We were happy for Tom and for ourselves since Tom is a Hole-In-One Club member which entitles him to \$200 worth of drinks at the clubhouse and a trip for two to Europe, the Caribbean or to our own Mauna Kea. We later learned that the club bill had exceeded the allotted \$200, but happy Tom was feeling no pain... Then on August 15, a Wednesday, **Milt Trager** (who willingly admitted to being a natural athlete who has developed a system of golfing which he calls "Mentastics," and has an "unconscious swing" in which he lets the club do the work), took a No. 3 iron on the 169-yard Pali No. 7 hole and also aced it... Milt is a non-handicapper and was playing with two others.

The oriental saying that "Things happen in threes" proved true, for on September 6, a Thursday afternoon, at approximately 1:30 pm, **Ed Emura**, who has been playing poorly of late, took his No. 5 iron on the MidPac 4th hole and plunked that ball into the cup for another hole-in-one. Ed was so happy that his game deteriorated completely after that and he shot a 96, but perhaps he was just too anxious to get back to the clubhouse, for Ed, too, is a Hole-In-One Club member, entitled to \$200 worth of club drinks. Ed is a wine connoisseur of wide reputation and never have we ever tasted so many types of wines and champagnes as we did later.

continued page 346



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Rhinorrhea? Fretfulness? Fitful Sleep?

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2nd Annual HMA Skin Diving Tournament

(Apr. 28-29 Kalaupapa)

Our eight hardy skin divers (**Ted Tseu, Bill Davis, Ed Dierdorf, Mark Schlacter, Herb Uemura, Roger Ogata, Tom Richert and H. Yokoyama**) met at the Royal Hawaiian Air Service terminal with enough coolers to store several tons of anticipated fish and lobsters. Our chauffeuring wives had to take home more than half the coolers. Still it was doubtful that the small 8-passenger Cessna would ever lift off the ground with all the gear... As the twin-engined light craft sputtered and struggled into the air, we held our breaths as if to make ourselves weightless... **Bill Davis**, happily ensconced in the co-pilot's seat, humored us with tales of the recent Hilo earthquake. "A urologist was crapping during the earthquake... He knew the building was old, but he didn't think it could fall apart so quickly... Besides, he's not sure whether or not he finished crapping before abandoning the building... Another Hilo MD was doing a pelvic when the quake hit and the startled gal yelled, "Oh! My goodness!" At this point, the pilot turned around and snickered sardonically, "Now's my chance to get back at you doctors." The rest of the flight and the events that transpired are a closed secret. Anyhow, we are grateful to have made it back. The next tournament will probably be held during the summer months when the waters are calmer... The coolers were no heavier on the flight back....

5th Annual St. Francis Hospital Golf Tournament

We were again invited to the delightful post-tournament banquet at the Hilton Hawaiian Village Terrace Lanai where the 46 participants divided \$1,200 worth of prizes. (This annual tournament is the richest in the local medical golf circuit.)... **Henry Fong**, last year's winner and automatic chairman for this year was ably assisted by **Tom Kobara** (in charge of prizes), **Young Paik** (in charge of donations) and master MC **Bill Dang**... **Henry Fong** took personal interest in the menu he had chosen which included such Dragon Room specialties as Taiwan Beef, Oyster with Garlic Sauce, Smoked Duck, Ginger Oil Chicken, etc., and was particularly happy that the task of chairing the tournament was nearly over... Henry, so happy, he was hilarious... so hilarious that he started laughing at his own jokes before telling them... Welcome to the 5th Annual SFH Golf Tournament; otherwise known as "The Bill Dang Benefit Golf Tournament." I managed a par on the first hole and I worried about winning again... Laying off the night before seems to be the secret of **Hideo Oshiro's** long drives... But I talked to the guy with the shortest drive who told me that *not* laying off the night before was good for his putting... (There was a pause for laughter at this Henry Fong original)... I want to congratulate **Tom Min** for winning... It's such a refreshing change... (The truth of the matter was that **Tom Minn, Bill Dang** and **Richard Mitsunaga** had tied for first with net 141's, but the tournament committee felt that the lowest handicapper should be the official winner... hence Tom (rather than Bill). MC **Bill Dang** acknowledged all the contributors to the tournament including hospital administrator, **Sister Maureen**, the various hospital departments, and private clinical groups and individuals, but said, "Special credit goes to **Clifford Chock** as the biggest donor year after year though he doesn't play golf himself." Also, I think **Tom Kobara** outdid himself this year (referring to the prizes stacked high in one corner of the banquet hall)... The Calloway system works mysteriously... **Young Paik** had

a handicap of 51 on the first day, 56 on the 2nd day and came in 10th place with net 73-73... He shot a par on the first day and even birdied the first hole on the 2nd day... He even hit 2 shots OB and asked, "What's OB?" **Arturo Salcedo** shot a high net of 88 on the first day and was worried till the next day when **Calvin Kam** caught up... Calvin shot overall high net with 81-93, thus winning that coveted trophy of a hand with the index finger pointing up, known as "The Fickle Finger of Fate" trophy, and becoming automatic co-chairman of next year's tournament. **Tom Min** who won by default of his lowest handicap had a happy grin: "I'm happy to be the winner and very unhappy to be the chairman for next year..."

We were earlier introduced to **Tennessee Ernie Ford** by **K.S. Tom** (his host) and Tennessee Ernie endeared himself as the master entertainer with his spontaneous humor and witty repartee... "You mean I won something (incredulously)... Do you realize what it meant to play with you fellows? I'm still wearing my stripes... I've been broken... Have you ever been invited to play in a foursome by K.S. Tom?... I'm wearing the scars... All because on that one time I arrived in Hawaii, I said 'Yes' to K.S... K.S. calls up: "Ernie?"... I say 'yes'... When I get to the golf course, I don't have to keep my score... After all these years, I still don't do nothing... K.S. arranged this too... I get to the course... K.S. introduces me to this guy (**Catalino Cachero**) who says, 'Hab yu sin ma grappite club?' I says, 'I beg your pardon?' So he says again, 'Hab yu sin ma grappite club?' I'm a Methodist... He's got a gorgeous smile... 'I gott ma grappite club.' I'm playin with K.S.'s wife's brother (**Al Chun Hoon**) and this unknown person (**Catalino**) and K.S. I can't make a bet... I can't do nothing... But I learned to love him (referring to Catalino)... I learned a new language... Can you imagine me learning a new language?... I come from East Tennessee... He is hitting the ball with a graphite... He takes it back like an octopus falling out of a tree... He's my partner... We get to the green... He gets over the ball, puts it into the hole... Then he dances... Never in my life have I enjoyed myself so much with people who enjoyed golf so much...."

Tom Thorson, HMA exec secretary, who shot an incredible 90-77 in guest flight, came up for his prize and told the following joke: "You know golf is a game of many chances and many opportunities... Two golfers came up behind two members of the Woman's Auxiliary... One of them says, 'Why don't you go up and ask them to let us play through'... So he goes up closer and comes back quickly... 'I can't go up to talk to those gals... One of them is my wife and the other my mistress'... So the other fellow goes up and comes back just as quickly... 'My God! It's a small world.'"

Herbert Min ran the jackpot and the winners were **Bill Chang** and **R. Davi** in first place, **Fred Lam** and **Bill Dang** in 2nd and **Tom Min** and **Herb Min** in 3rd with **Mike Okihiro** and **KH Choy** winning the booby prize...

Acupuncture Demonstration at Kuakini

We missed the demonstration, but **Max Urata** gave us a running account of the lecture-demonstration by Japanese physicians who came equipped with SONY cassette films as well as acupuncture equipment and accompanied by local physician-acupuncturist **Roger Ogata**. Anesthesiologist **Naomitsu Tajima** was one of three physicians volunteering for the diagnostic and therapeutic demonstrations. On Naomitsu, 4 out of 5 diagnoses, including a stiff shoulder and a liver ailment, proved to be correct. **Homer Izumi**, the third volunteer, was so impressed by the treatment to his neck for a persistent stiffness which had not responded to other modes of therapy that he gave an inspirational testimonial.

In the coffee shop, skeptic **Hideo Oshiro** was ecstatic: "It was hilarious... I laughed and laughed, especially when they

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"Probably" effective: For estrogen deficiency-induced osteoporosis, and only when used in conjunction with other important therapeutic measures such as diet, calcium, physiotherapy, and good general health-promoting measures. Final classification of this indication requires further investigation.

Contraindications: Short acting estrogens are contraindicated in patients with (1) markedly impaired liver function; (2) known or suspected carcinoma of the breast, except those cases of progressing disease not amenable to surgery or irradiation occurring in women who are at least 5 years postmenopausal; (3) known or suspected estrogen-dependent neoplasia, such as carcinoma of the endometrium; (4) thromboembolic disorders, thrombophlebitis, cerebral embolism, or in patients with a past history of these conditions; (5) undiagnosed abnormal genital bleeding.
Warnings: Estrogen therapy should not be given to women with recurrent chronic mastitis or abnormal mammograms except, if in the opinion of the physician, it is warranted despite the possibility of aggravation of the mastitis or stimulation of undiagnosed estrogen-dependent neoplasia.

The physician should be alert to the earliest manifestations of thrombotic disorders (thrombophlebitis, retinal thrombosis, cerebral embolism and pulmonary embolism).

If these occur or are suspected, estrogen therapy should be discontinued immediately.

Estrogens may be excreted in the mother's milk and an estrogenic effect upon the infant has been described. The long range effect on the nursing infant cannot be determined at this time.

Hypercalcemia may occur in as many as 15 percent of breast cancer patients with metastases, and this usually indicates progression of bone metastases. This occurrence depends neither on dose nor on immobilization. In the presence of progression of the cancer or hypercalcemia, estrogen administration should be stopped.

A statistically significant association has been reported between maternal ingestion of diethylstilbestrol during pregnancy and the occurrence of vaginal carcinoma in the offspring. This occurred with the use of diethylstilbestrol for the treatment of threatened abortion or high risk pregnancies. Whether or not such an association is applicable to all estrogens is not known at this time. In view of this finding, however, the use of any estrogen in pregnancy is not recommended.

Failure to control abnormal uterine bleeding or unexpected recurrence is an indication for curettage.

Precautions: As with all short acting estrogens, the following precautions should be observed:

A complete pretreatment physical examination should be performed with special reference to pelvic and breast examinations.

To avoid prolonged stimulation of the endometrium and breasts in climacteric or hypogonadal women, estrogens should be administered cyclically (3 week regimen with 1 week rest period—withdrawal bleeding may occur during rest period).

Because of individual variation in endogenous estrogen production, relative overdosage may occur which could cause undesirable effects such as abnormal or excessive uterine bleeding, mastodynia and edema.

Because of salt and water retention associated with estrogenic anabolic activity, estrogens

should be used with caution in patients with epilepsy, migraine, asthma, cardiac, or renal disease.

If unexplained or excessive vaginal bleeding should occur, reexamination should be made for organic pathology.

Pre-existing uterine fibromyomata may increase in size while using estrogens; therefore, patients should be examined at regular intervals while receiving estrogenic therapy.

The pathologist should be advised of estrogen therapy when relevant specimens are submitted.

Because of their effects on epiphyseal closure, estrogens should be used judiciously in young patients in whom bone growth is incomplete.

Prolonged high dosages of estrogens will inhibit anterior pituitary functions. This should be borne in mind when treating patients in whom fertility is desired.

The age of the patient constitutes no absolute limiting factor, although treatment with estrogens may mask the onset of the climacteric.

Certain liver and endocrine function tests may be affected by exogenous estrogen administration. If test results are abnormal in a patient taking estrogen, they should be repeated after estrogen has been withdrawn for one cycle.

Adverse Reactions: The following adverse reactions have been reported associated with short acting estrogen administration:

nausea, vomiting, anorexia
gastrointestinal symptoms such as abdominal cramps and bloating
breakthrough bleeding, spotting, unusually heavy withdrawal bleeding (See **DOSAGE AND ADMINISTRATION**)
breast tenderness and enlargement
reactivation of endometriosis
possible diminution of lactation when given immediately postpartum
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edema
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allergic rash
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If the patient has not menstruated within the last two months or more, cyclic administration is started arbitrarily. If the patient is menstruating, cyclic administration is started on day 5 of bleeding. If breakthrough bleeding (bleeding or spotting during estrogen therapy) occurs, increase estrogen dosage as needed to stop bleeding. In the following cycle, employ the dosage level used to stop breakthrough bleeding in the previous cycle. In subsequent cycles, the estrogen dosage is gradually reduced to the lowest level which will maintain the patient symptom-free.

Postmenopause—as a protective measure against estrogen deficiency-induced degenerative changes (e.g. osteoporosis, atrophic vaginitis, kraurosis vulvae)—0.3 mg. to 1.25 mg. daily and cyclically. Adjust dosage to lowest effective level.

Osteoporosis (to retard progression)—usual dosage 1.25 mg. daily and cyclically.

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diagnosed a stomach ailment by putting needles in the toes and hands... Akira Kutsunai got so mad at me that he told me to leave if I continued to laugh..." Ike Nadamoto commented caustically: "It's the best form of treatment for psychogenic disorders..." Toru Nishigaya, HMSA medical director declared, "HMSA is not making payments." When we tried to explain to Hideo that fellow ENT man Ed Dierdorf had it done for his sinusitis with good results, Hideo claimed, "It must have been a case of vasomotor rhinitis." ■

Announcements

POSTGRADUATE COURSES

Sponsored by the American College of Physicians, 4200 Pine Street, Philadelphia, Pa. 19104. Please write direct for additional information.

Nov. 12-14, 1973

PULMONARY DISEASE: CLINICAL, IMMUNOLOGICAL AND PATHOLOGICAL CORRELATIONS, Mayo Clinic, Rochester, Minn.

Nov. 12-15, 1973

ADVANCES IN CLINICAL CANCER, University of California, San Francisco, Calif.

Nov. 14-16, 1973

HYPERTENSION: CURRENT TRENDS, Cornell Medical Center—New York Hospital, New York, N.Y.

Nov. 28-30, 1973

HUMAN HYPERSENSITIVITY DISORDERS: CLINICAL ASPECTS & PATHOGENETIC MECHANISMS, University of Michigan Medical Center, Ann Arbor, Mich.

Dec. 5-7, 1973

CURRENT CONCEPTS OF CLINICAL INFECTIOUS DISEASES, University of Virginia School of Medicine, Charlottesville, Va.

Jan. 7-11, 1974

WORKSHOPS IN THE PHYSIOLOGY, DIAGNOSIS AND TREATMENT OF ELECTROLYTE AND ACID BASE DISORDERS, University of Pennsylvania School of Medicine, Philadelphia, Pa.

Jan. 9-12, 1974

INFECTIOUS DISEASES: NEW DEVELOPMENTS, University of California, San Diego, Calif.

Jan. 21-23, 1974

CLINICAL APPLICATION OF RECENT ADVANCES IN MEDICINE, Oschner Medical Clinic, New Orleans, La.

Jan. 21-25, 1974

HEMATOLOGY-1974, University of Miami School of Medicine, Miami, Fla.

Feb. 27-Mar. 1, 1974

CARDIOLOGIC PERSPECTIVES FOR THE INTERNIST: 1974, Baylor College of Medicine, Houston, Tex.

Mar. 4-7, 1974

THE PHYSIOLOGICAL BASIS FOR CLINICAL DISEASE, University of Texas, Southwestern Medical School, Dallas, Tex.

Mar. 11-15, 1974

CURRENT CONCEPTS IN DIAGNOSIS AND MANAGEMENT OF RENAL DISEASE, Cornell Medical Center, New York, N.Y.

Mar. 18-21, 1974

RHEUMATIC DISEASES: PATHOGENESIS, DIAGNOSIS AND TREATMENT, University of Michigan Medical Center, Ann Arbor, Mich.

Mar. 21-23, 1974

HEMATOLOGY AND ONCOLOGY, Duke University Medical Center, Durham, N.C.

Mar. 25-29, 1974

CRITICAL CARE MEDICINE, University of Oklahoma Health Sciences Center, Oklahoma City, Okla.

Apr. 15-19, 1974

CLINICAL ENDOCRINOLOGY: RECENT ADVANCES IN DIAGNOSIS AND TREATMENT, Mayo Clinic, Rochester, Minn.

Apr. 17-19, 1974

AN ELECTROPHYSIOLOGICAL APPROACH TO THE DIAGNOSIS AND TREATMENT OF CARDIAC ARRHYTHMIAS, University of Pennsylvania School of Medicine, Philadelphia, Pa.

Apr. 24-26, 1974

PRESENT PRACTICE AND NEW DEVELOPMENTS IN NUCLEAR MEDICINE, University of California, Berkeley, Calif.

Apr. 24-26, 1974

COMPUTERS IN PATIENT CARE, Harvard Medical School—Massachusetts General Hospital, Boston, Mass.

May 13-16, 1974

INTEGRATED THEORY AND PRACTICE IN ADULT HEART DISEASE, Harvard Medical School, Boston, Mass.

May 20-24, 1974

PROGRESS IN INTERNAL MEDICINE, University of Pittsburgh Medical Center, Pittsburgh, Pa.

May 27-31, 1974

PRACTICAL THERAPEUTICS FOR 1974, University of Kentucky, Lexington, Ky.

Book Reviews continued from 337

***Cardiac Surgery—2nd Ed.**

By John C. Norman, M.D., 700 pp., \$18.95, Appleton-Century-Crofts, 1972.

This book is a comprehensive review of the field of cardiac surgery. It touches on nearly every aspect of cardiopulmonary bypass and the surgical repair of cardiac disease. Because of the extensiveness of the field, many of the pathophysiologic aspects of cardiac disease are dealt with rather superficially but nearly all pertinent topics are touched upon and well referenced for further in-depth investigation. It should serve as a valuable reference text. It is current; well organized, and clearly presented. Though many of the authors are not leaders in the field, they are all well recognized and have carried out a thorough and impartial review of their specific topics. Its comprehensive coverage on nearly every topic and the current status of its information make it the most valuable reference text available in cardiac surgery at the present time.

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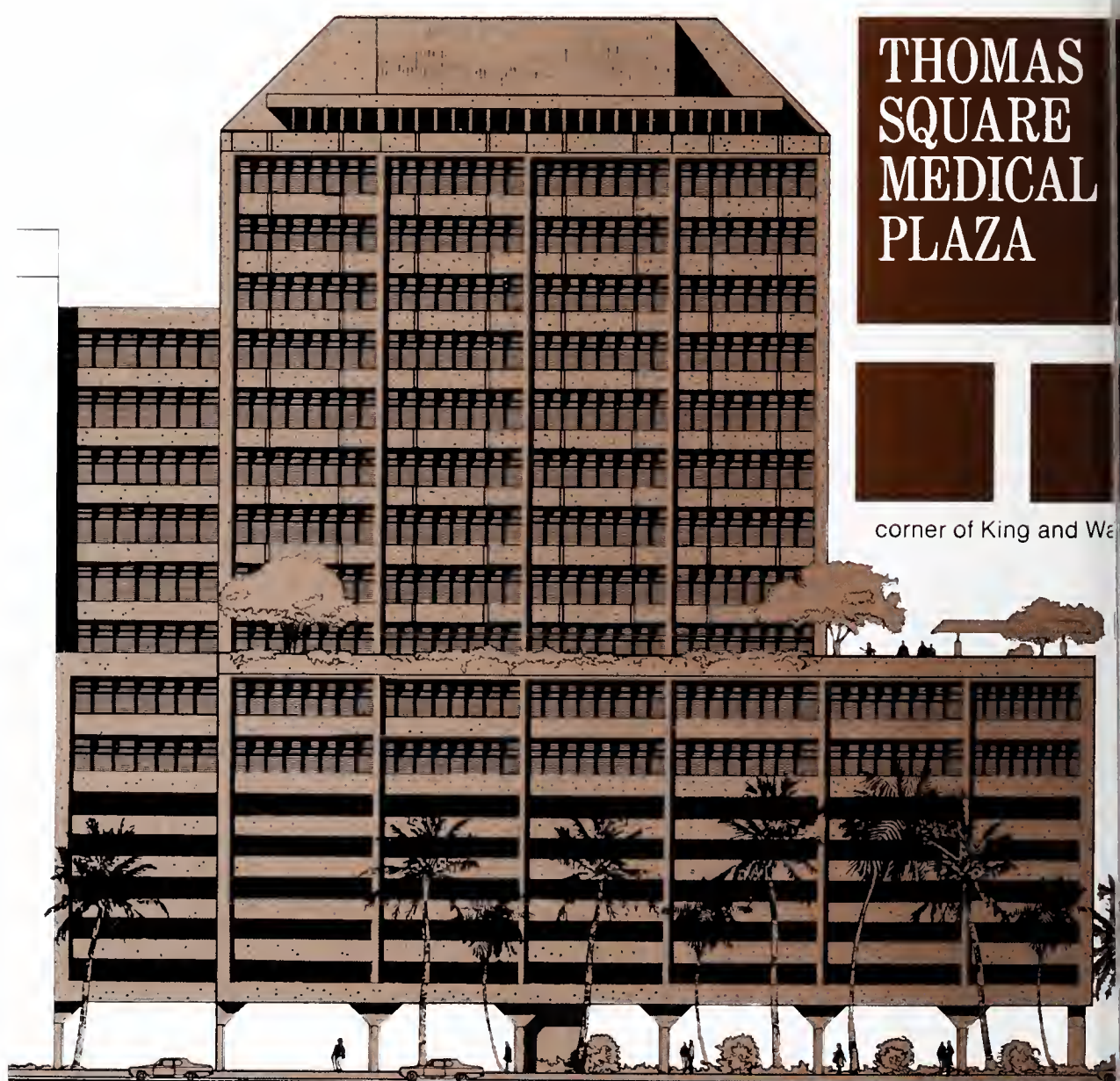
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Cancer Chemotherapy II

Edited by Isadore Brodsky, M.D. and S. Benham Kahn, M.D., 478 pp., \$29.50, Grune & Stratton, 1972.

This book begins with the mechanism of action of chemotherapeutic drugs. It also includes chapters on interferon, immunology, intermediary metabolism and hemostasis which may be the new frontiers in cancer chemotherapy.

The second section covers management of solid tumors: cancer of the breast, gastrointestinal neoplasms, neoplasms of ovary and uterus, premalignant and malignant skin neoplasms, endocrine neoplasms, solid tumors in children, genitourinary neoplasms, neoplasms of the respiratory tract, soft tissue sarcoma, brain tumors, and hematologic neoplasms in pregnancy. The approach is for palliation, so the dosages and the schedules are investigational in nature rather than routine.

The third section covers bone marrow physiology and protection. The fourth section emphasizes the hematologic neoplasms such as acute leukemia, myeloproliferative and lymphoproliferative diseases, multiple myeloma, Hodgkin's Disease, and macroglobulinemia. The chapters also include immunotherapy of leukemia as well as radiation therapy and lymphocyte function in Hodgkin's Disease.

The last area covered, regional chemotherapy, emphasizes isolation perfusion and arterial infusion. As a sidelight, radiation therapy under hyperbaric oxygenation is included in this segment.

Overall, the volume provides a compilation of investigational information and, based upon them, an approach to the clinical management of patients. There are no summaries after each chapter but the liberal bibliographic references amply make up for this deficiency.

This book is long overdue and it will be valuable for all professionals interested in chemotherapy of cancer.

GLENN M. KOKAME, M.D.

*Immunohematology, 2d Ed.

By C.M. Zmijewski, M.D. and J.L. Fitcher, M.D., 334 pp., \$15.50, Appleton-Century-Crofts, New York, 1972.

This is, by the authors' intention, a text on immunologic phenomena using the human blood groups and our expanding knowledge of them as the practical basis for learning immunologic facts. It is a clearly written and very well-illustrated book, but technical and often complex, designed for the serious student of immunology, regardless of his basic biologic discipline. Appendices contain general laboratory methods in immunohematology but there is no intention that the book be considered a laboratory manual. The chapter on leukocyte antigens and antibodies and their relationship to histocompatibility is an excellent introduction to this complex field. The references are carefully selected rather than comprehensive. This book is for the beginner but assumes a reasonable background in genetics and protein chemistry. It is highly recommended.

DRAKE W. WILL, M.D.

Progress in Hemostasis and Thrombosis

By Theodore H. Spaet, M.D., 257 pp., \$15.00, Grune & Stratton, 1972.

This compact volume, the first (hopefully in a long series) on recent advances in blood coagulation, written by 8 experts covering extrinsic coagulation, platelets, molecular basis, inhibitors, flow, surfaces, animal models, and uremic bleeding. The 8 chapters are well done, concise with up to date studies, well documented by references. This small volume is highly recommended to all those interested in the detailed, complex phases of blood coagulation.

ROBERT T.S. JIM, M.D.

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"Too many doctors are indifferent to the economic consequences of their decisions." So stated a recent issue of *Medical News Report* (December 4, 1972), an independent weekly newsletter published by former AMA Chief Executive F. J. L. Blasingame, M.D.

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In discussing an anticipated increase in Blue Shield rates, Dr. Blasingame's newsletter had this to say:

"In general, it can be said, MDs have given the impression they are not particularly concerned with the increase in cost of health care to their patients . . .

"True, an MD's training is primarily scientific, but in the real world of practice, all of his scientific decisions have a price tag, or an economic impact. The economics of health care beckon the practitioner's attention. Concern for economics of medicine

When the pharmacist recommends that a drug product other than the one ordered be dispensed, the prescriber invariably permits the change when he feels the best interests of the patient will be served.

Shortcomings of Pro-Substitution Argument

The fact remains that it is necessary for the prescriber to know that the change is being contemplated, and to be in a position to consent or demur. Without that opportunity, the unilateral decision of the pharmacist made in the absence of clinical knowledge of the patient, could expose him to needless risks, and in addition, jeopardize the relationship between the professions of Pharmacy and Medicine. In my view, there is nothing in the pro-substitution argument that offsets these risks.

The Issue of Drug Knowledge

Substitution advocates claim that the primary justification for changing the rules is the desire to better utilize pharmacists' knowledge about drugs. Yet the pharmacist's task to keep current on the entire field of drug therapy, to some degree puts him at a disadvantage. Most often, a practicing physician will need expert knowledge of no more than 20

ould be an obligation of medical practice...

"Medical societies ought to conduct continuing campaigns to point out the substantial savings that could be realized thru deductible insurance and protection for catastrophic illness. At the very least, they should, in the patients' interest, question the tactics of any insurance organization that raises health care costs by forcing policyholders to buy insurance they may not need or want and probably won't ever use.

"Too many doctors are indifferent to the economic consequences of their decisions. Too many, for example, habitually hospitalize patients for the convenience of the MD. It's nonsense to deny such habits exist...

"Doctors, thru their medical societies, have unhesitatingly appealed to their patients for support in the fight against government interference with the private practice of medicine. And the public in the past has responded. It's time the American Medical Association and state and local medical societies paid off the debt by decisive action to hold down the cost of medical care."

Cost of Drugs

Insurance rates and hospital charges are only two factors in health

30 drugs that he selects to treat the majority of conditions encountered in his practice. Moreover, the physician's choice of a specific brand is based on his knowledge of the patient's medical history and current condition, and his experiences with the particular manufacturer's product.

Some substitution proponents have argued that the dispensing of a prescription is a simple two-party transaction between the pharmacist and the patient, and that a substituting pharmacist may avoid even a technical breach of contract by simply notifying the patient that he is making the substitution. I would judge that few courts would be sympathetic toward a pharmacist who substituted without physician approval and who undertook a legal defense that seeks to make the patient responsible for the pharmacist's actions.

Reduced Prescription Prices?

Substitution advocates are suggesting to the consumer, and particularly the consumer activist, that reduced prescription prices could allow legalization of substitution. We have seen absolutely no evidence to justify this claim. To the contrary, experience in Alberta, Canada, where substitution is authorized, suggests

care costs. The cost of drugs—both prescription and nonprescription—is another.

And when it comes to drug costs, the nation's pharmacists are concerned. Through their national professional society, the American Pharmaceutical Association, pharmacists are advising the public to use nonprescription medication cautiously and conservatively, and to seek the advice of their pharmacist before selecting or purchasing such drugs.

Outdated Laws

The pharmacist also is aware that when it comes to prescription drugs, often he has an even greater opportunity to reduce the cost to the patient—with no sacrifice in the quality of the medication dispensed. But in many states, outdated and antiquated laws prevent the pharmacist from engaging in drug product selection. "Drug product selection" simply means that the pharmacist functions in the patient's interest by consciously choosing, from the multiple brands available, a low-cost quality brand of the specific drug to be dispensed in response to the physician's prescription order.

Much *misinformation* has been purposely spread by those who stand to gain financially by maintaining

the opposite.

Many pharmacists understandably are concerned about the cost of maintaining multiple stocks of similar products. While there is no doubt that inventory costs rise when additional brands are stocked, it would be interesting to know how much they rise, and how many pharmacists actually stock *all* brands—of, say, ampicillin or tetracycline—or how long they keep "slow moving" products on their shelves before they are returned for credit. To ask that the industry eliminate multiple sources is to ask competitors to stop competing.

Drug Substitution—A License for the Unethical

Anti-substitution repeal would favor "corner cutting" pharmacists and manufacturers. For them, free substitution would be not a right, but a license. As an aftermath, it is quite likely that the confidence of both physicians and patients in the profession of Pharmacy would be eroded, as revelations about the unconscionable behavior of an undisciplined few were magnified in the press or in professional circles.

Summary

In short, what the American Pharmaceutical Association advo-

high drug costs to the public. An endless stream of propaganda has emanated from the drug industry in an effort to persuade the medical profession that these so-called anti-substitution laws should be retained. And as long as these laws are retained, the drug industry will continue its current marketing practices which contribute unnecessarily to high drug costs to patients. These practices also are inviting government agencies to expand their restrictive controls on physicians and pharmacists.

APhA Efforts

As pharmacists, we are concerned about health care costs. We hope that every physician shares our concern on this vital issue, and will give his personal support to the constructive efforts APhA has undertaken in the interest of all patients.

(For a complete discussion of drug product selection, you are invited to request a free copy of the "White Paper on the Pharmacist's Role in Product Selection" from: American Pharmaceutical Association, 2215 Constitution Avenue, N.W., Washington, D.C. 20037.)

cates as a broad-spectrum panacea looks to us to be not only a minority view (advocacy of substitution is by no means a uniform policy in Pharmacy), but also an extraordinarily costly and ineffective remedy, whose side effects are odious. We believe (1) that an impressive majority of pharmacists prefer to work with Medicine and with industry, for the consumer, and for the general good, (2) that they seek the privilege to substitute when the patient might gain and when the patient's doctor agrees, and (3) that they seek to work for the resolution of genuine grievances openly and professionally.

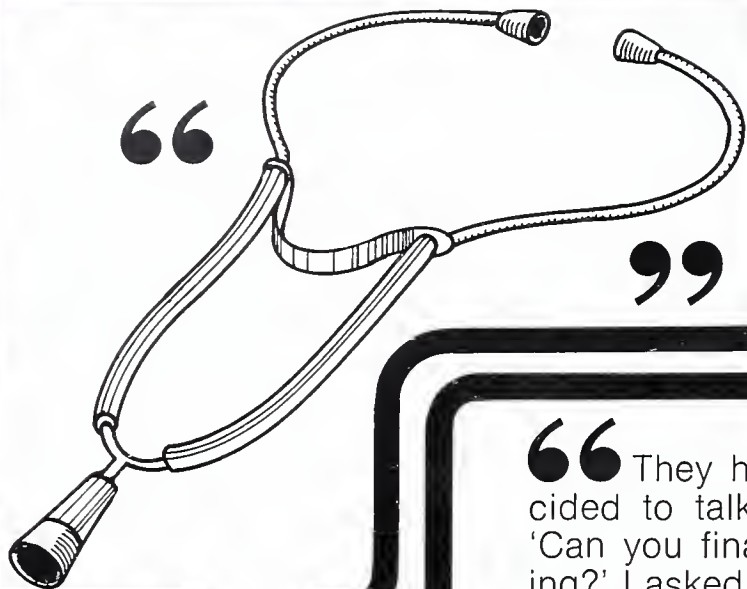
(For amplification of PMA views, please write for our booklet, "The Medications Physicians Prescribe: Who Shall Determine the Source?" It is available from: Pharmaceutical Manufacturers Association, 1155 Fifteenth Street, N.W., Washington, D.C. 20005.)

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Progress in Neurology and Psychiatry—Vol. 27
An annual review, 372 pp., \$26.50, Grune & Stratton, 1972.

As in the previous years, the *Progress* for 1972 consists of four areas: basic sciences, neurology, neurosurgery, and psychiatry. In turn, each of these is sub-divided into several areas of endeavor. As the field is very wide, it is only natural that most of the reviews herein published reflect the bias of the respective reviewers; whereas some chapters (the unfortunate few) read like an all-too meticulous telephone book without end in sight, other chapters, especially those in neurology and psychiatry, are much more readable, more interesting to this reviewer, and most likely more understandable to an average reader.

This reviewer very strongly recommends *Progress In Neurology and Psychiatry* to any more serious student of the field, with particular emphasis for those preparing to take Board examinations. Even though some areas in the field have been omitted due to biases of the respective reviewers, there is a plethora of up-to-date information and an ultimate feeling of richness at one's fingertips.

KOSTA STOJANOVICH, M.D.

Counseling-Learning, A Whole-Person Model for Education

By Charles A. Curran, Ph.D., 258 pp., \$11.75, Grune & Stratton, 1972.

As the hyphens suggest, this is an amalgam of the viewpoints of therapeutic counseling and classroom teaching. It is a lesson, a sermon, a credo and a guide. Since so many of us are doctor-teachers, we may profit from Professor Curran's observations.

He deplores the computerized educational pyramid devised to disqualify all but the most capable students. He suggests that in a democracy, education is not just for the selected best students, but all learners should be accepted and encouraged to develop their unique and personal capacities.

In this book, by diagram, example and theoretical discussion, we see that invariably the teacher is in distress, afraid that he will fail to put across what he knows, and similarly the student is reluctant to risk his self-esteem trying something he doesn't yet do at all well. Bringing all this uneasiness and hostility into the open may permit more successful teaching.

LEE H. FALK, M.D.

G. Hypertension: Dr. Chinn requested that the Council consider meeting with various members of the community and investigate the feasibility of doing a study of hypertension.

ACTION:

It was voted to form a committee to investigate the feasibility of studying hypertension.

ACTION:

It was voted to invite the chief of staff or president of the executive board from the following: Kuakini, Queen's, and St. Francis Hospitals, Hawaii Heart Association, Medical School and others deemed appropriate by the chairman to carry out the above action.

H. PSRO: Dr. Lee reported that the Foundation Board would meet the day following the Council meeting to study the PSRO law, determine what needs to be done in Hawaii and how PSRO can be implemented. He reviewed the discussion of the AMA Convention regarding PSRO.

I. EMCRO: Mr. Won has been appointed as project coordinator for the EMCRO project. Approval has been received for a six-month grant extension of the EMCRO project in order that an external evaluation can be performed by Arthur D. Little and Company.

NEW BUSINESS

A. Dean of School of Public Health: The HMA was asked to participate in the selection of a new dean for the School of Public Health. Several of the officers interviewed prospective candidates and recommendations were made to the search committee.

B. Letter from Arbitration Association: A request was received to provide a list of doctors who might be willing to serve as arbitrators for a new arbitration program. The Council discussed arbitration and the peer review process. Because the request is limited to one contract of a single closed panel group, the Council did not feel HMA should be involved in the selection of arbiters.

FUTURE MEETINGS

The House of Delegates authorized the Council to hold a budget session to determine the 1974 budget and dues. The budget session is scheduled for Friday, November 2. The next Council meeting will be held on either August 24 or September 14 depending on the volume of business to be conducted.

R. Varian Sloan, M.D., *Secretary*

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Hastings, J.B., in *Organization and Timetable for a One-Day Mass Screening Program for Colo-Rectal Cancer*, Philadelphia, Smith Kline Diagnostics, 1973.



For information on guaiac testing for occult blood with 'Hemoccult', mail coupon... or call Pat Hynes (215) 564-2400 or your Smith Kline Representative. Please do it today! Colo-rectal cancer is second only to lung cancer as a cause of cancer deaths in the United States.

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Before prescribing, see complete prescribing information in SK&F literature or *PDR*.

***Indications:** Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. Also, mild to moderate hypertension.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (> 5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides

are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

Supplied: Bottles of 100 capsules.

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Before prescribing, see complete prescribing information in SK&F literature or PDR.

Indications: Upper respiratory congestion and hypersecretion associated with: the common cold; acute and chronic sinusitis; vasomotor rhinitis; allergic rhinitis (hay fever, "rose fever," etc.).

Contraindications: Hypersensitivity to any component; concurrent MAO inhibitor therapy; severe hypertension; bronchial asthma; coronary artery disease; stenosing peptic ulcer; pyloroduodenal or bladder neck obstruction. Children under 6.

Warnings: Caution patients about activities requiring alertness (e.g., operating vehicles or machinery). Warn patients of possible additive effects with alcohol and other CNS depressants.

Usage in Pregnancy: In pregnancy, nursing mothers and women who might bear children, weigh potential benefits against hazards. Inhibition of lactation may occur.

Effect on PBI Determination and I^{131} Uptake: Isopropamide iodide may alter PBI test results and will suppress I^{131} uptake. Substitute thyroid tests unaffected by exogenous iodides.

Precautions: Use cautiously in persons with cardiovascular disease, glaucoma, prostatic hypertrophy, hyperthyroidism.

Adverse Reactions: Drowsiness, excessive dryness of nose, throat or mouth; nervousness; or insomnia. Also, nausea, vomiting, epigastric distress, diarrhea, rash, dizziness, weakness, chest tightness, angina pain, abdominal pain, irritability, palpitation, headache, incoordination, tremor, dysuria, difficulty in urination, thrombocytopenia, leukopenia, convulsions, hypertension, hypotension, anorexia, constipation, visual disturbances, iodine toxicity (acne, parotitis).

Supplied: Bottles of 50 capsules.

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Lesion #2—Two days after initiation of therapy. Electron micrograph of solar keratotic skin from patient's hand.

Typical abnormalities are:

Malpighian cells [containing an abundance of thick tonofibrils (T)] which are connected with well-developed desmosomes (D). Note the clumped tonofibrils in the so-called 'dyskeratotic' cell (arrow) indicative of solar keratosis. No change can be noted at this level after two days of therapy. $\times 5000$ (12/16/71)



Lesion #3—Two weeks after initiation of therapy. Electron micrograph of skin from patient's hand.

Improvement shown:

Less conspicuous desmosomes (D), widened intercellular spaces and Malpighian cells showing a remarkable reduction of tonofibrils (T). The arrow indicates a degenerating dyskeratotic cell. $\times 5000$ (12/31/71)

Solar, actinic or senile keratoses

By whatever name they may be known, they commonly occur as multiple lesions and chiefly on the exposed portions of the skin. Because they may be premalignant, it is generally agreed that they should be treated. Surgery, cryotherapy, or electrodesiccation may present certain drawbacks, both for the physician and the patient, but there is Efudex[®] (fluorouracil)—as an alternative to conventional therapy.

Sequence of therapy— Selectivity of response

The easily applied Efudex cream or solution usually begins to show effects within a few days—an erythema in the area of the lesions. Within two weeks after initiation of therapy, this reaction usually reaches its height of unsightliness and discomfort, declining after discontinuation of therapy. This reaction occurs in affected areas. Since the response is so predictable, lesions that do not respond should be biopsied to rule out the presence of a frank neoplasm.

Acceptable results

Treatment with Efudex (fluorouracil) provides highly acceptable cosmetic results posttherapeutically. The incidence of scarring is low.* This is particularly important with multiple facial lesions. Efudex should be applied with care near the nose, eyes and mouth.

5% cream/solution—a Roche exclusive

Only Roche formulates the 5% cream and solution—high in patient acceptability—economical—and higher in clinical efficacy than the 2% formulation for lesions of the hands and forearms.

*Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey.



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In treating solar keratoses which may be premalignant.



Before treatment — 12/14/71



After treatment — Two weeks after therapy stopped — 1/28/72

This patient's solar keratoses responded to Efudex (fluorouracil) 5%

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

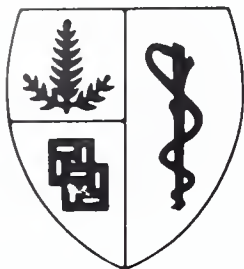
Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)amino-methane, hydroxypropyl cellulose, parabens (methyl and

propyl) and disodium edetate.

Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).

An alternative to conventional therapy
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cream/solution



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October 29, 30, 31, November 1, 2, 1973

Designed to review in detail the practical aspects of the management of the critically ill patient, this interdepartmental five-day course is divided into three parts: a morning lecture series, elective problem-solving sessions, and elective seminars and demonstrations. The course content and presentations have been developed to meet the needs of practicing physicians and surgeons.

Tuition for the course is \$215, with registration required no later than October 26. This course has been oversubscribed in previous years and early registration is therefore advised. A refund of \$190 will be allowed if cancellation is received by October 24.

COURSE OUTLINE

THE LECTURE SERIES 9 a.m.-12 noon (M-F)

Hemodynamic Monitoring; Myocardial Revascularization; Antiarrhythmic Drugs; Respiratory Failure I: Pathophysiology; Respiratory Failure II: Manifestations and Management; Endocrine Emergencies; Clotting Mechanisms; Common Bleeding Problems in Children; Common Bleeding Problems in Adults; General Approach to Serious Infections; Bacteremia, Septic Shock, Endocarditis; Meningitis and Brain Abscess; Thromboembolism; Adrenal Crisis; Drainage of the Urinary Tract

PROBLEM-SOLVING SERIES (elective by set) 1:30-2:30 p.m. (M-Th)

EKG PROBLEMS: Acute Myocardial Infarction; Tachyarrhythmias; Bradyarrhythmias; ST-T Changes in Severe Illness

BLOOD GAS AND ACID-BASE PROBLEMS: Respiratory Acidosis and Alkalosis; Metabolic Acidosis; Metabolic Alkalosis; Oxygen Transport

SALT AND WATER PROBLEMS: Water; Sodium; Potassium; Miscellaneous Syndromes

CIRCULATORY CRISES: Shock; Pericardial Tamponade; Pulmonary Edema; Pulmonary Embolism

SEMINAR AND

DEMONSTRATION SERIES (elective by set) 3:00-4:00 p.m. (M-Th)

ICU METHODS: Resuscitation; CVP and Arterial Lines; Use of Ventilators; Pacemakers

TRAUMA: Injuries to the Face; Injuries to the Hand; Injuries to the Chest; Injuries to the Head and Spine

NEONATAL CRISES: Neonatal Asphyxia; Respiratory Distress Syndrome; Hemorrhagic Disorders of the Newborn; Metabolic Crises in the Newborn

ICU MANAGEMENT PROBLEMS: Use of Blood Components; Acute Renal Failure; Oncologic Emergencies; Hyperalimentation

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October 29-November 2, 1973

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HAWAII MEDICAL JOURNAL

VOLUME 32 / NUMBER 6 • NOVEMBER / DECEMBER 1973



What should a medication for sleep be expected to provide?



Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or

recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years

of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with

Sleep for 7 to 8 hours without need to repeat dosage during the night

No sleep medication has been as rigorously evaluated in the sleep research laboratory as Dalmane. Insomnia patients given one 30-mg capsule of Dalmane at bedtime, on average: fell asleep within 17 minutes, had fewer nighttime awakenings, spent less time awake after sleep onset, and slept for 7 to 8 hours with no need to repeat dosage during the night.

Sleep with consistency

Dalmane has been shown to be consistently effective even during consecutive nights of administration. Thus there is little likelihood for the need to increase dosage to maintain therapeutic effect.

Dalmane (flurazepam HCl) is a distinctive sleep medication—a benzodiazepine specifically indicated for insomnia. It is not a barbiturate or methaqualone, nor is it related chemically to any other available hypnotic.

Sleep with relative safety

Chronic tolerance studies have confirmed the relative safety of Dalmane; no depression of cardiac or respiratory function was noted in patients administered recommended or higher doses for as long as 90 consecutive nights. Dalmane is generally well tolerated and morning "hang-over" is relatively infrequent.

Dizziness, drowsiness, lightheadedness and the like have been the side effects noted most frequently, particularly in elderly and debilitated patients. (An initial dose of Dalmane 15 mg should be prescribed for these patients.)

DALMANE®

(flurazepam HCl)

When restful sleep is indicated

One 30-mg capsule *h.s.*—usual adult dosage

(15 mg may suffice in some patients).

One 15-mg capsule *h.s.*—initial dosage for elderly or debilitated patients.



ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

ent depression or suicidal tendencies.
periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

verse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe dation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported.

Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech,

confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. Adults: 30 mg usual dosage; 15 mg may suffice in some patients.

Elderly or debilitated patients: 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

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*Cover: An original engraving from the collection of Meryl H. Haber, M.D.
From the third voyage of Captain James Cook, this print by J. Webber is entitled "A Man of the Sandwich Islands, with his helmet."*

ROCHE announces new **BACTRIM**TM

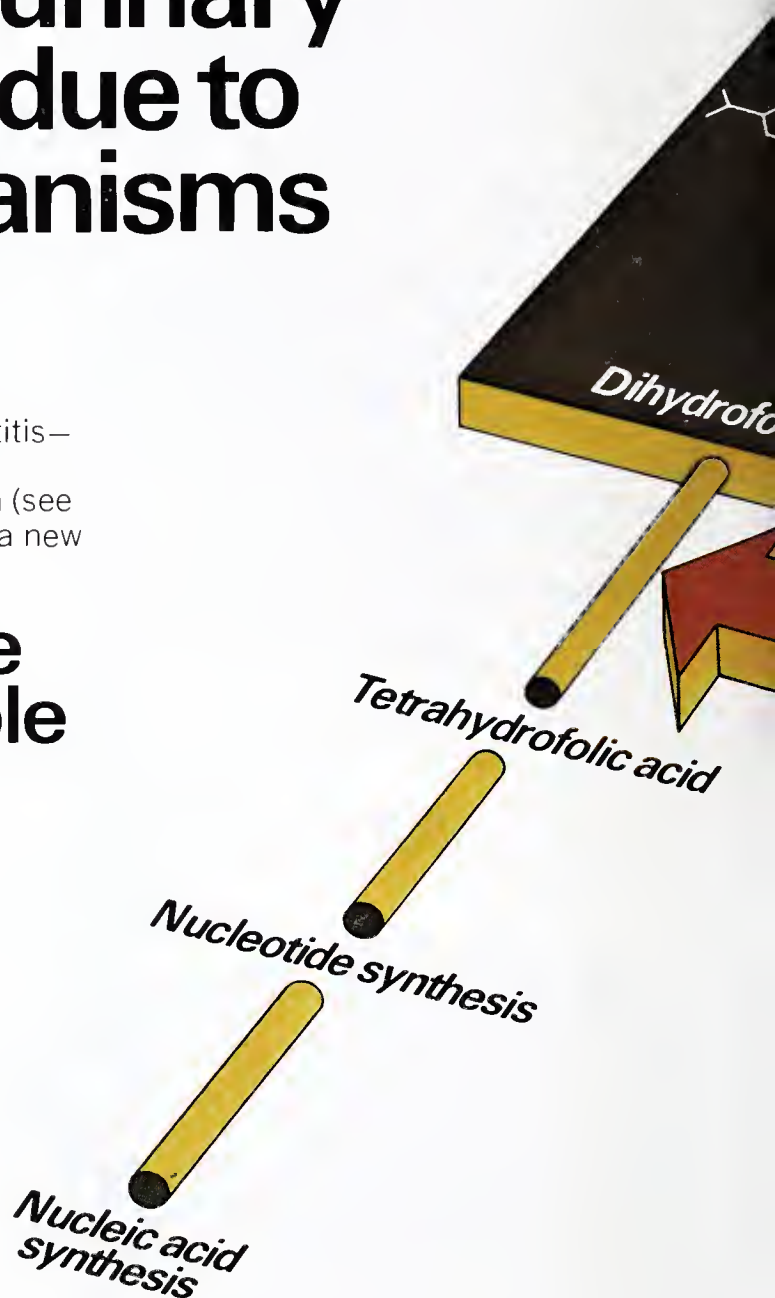
Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

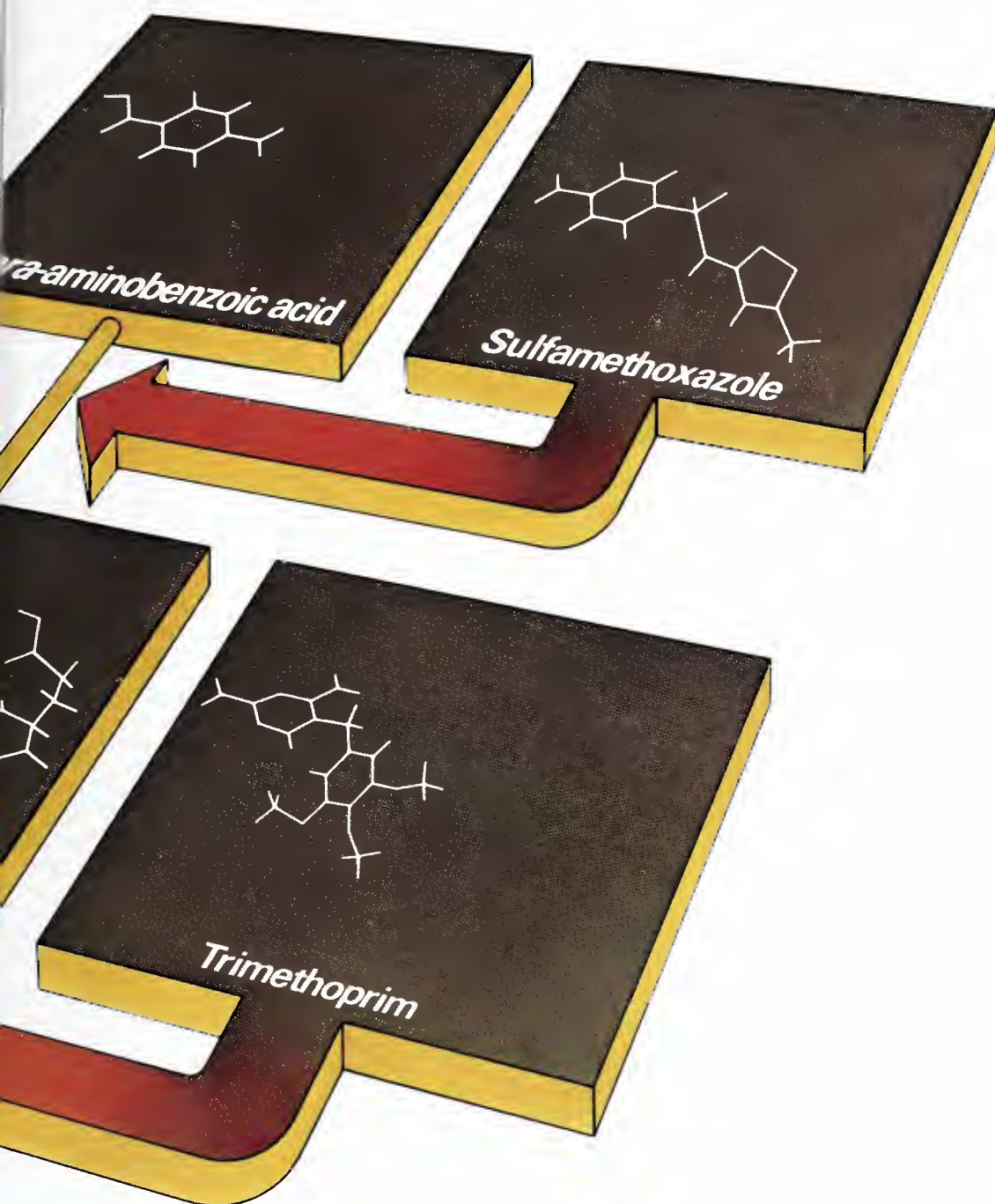
a new type of antibacterial for a two-pronged attack against chronic urinary tract infections due to susceptible organisms

Bactrim is highly effective in the treatment of these infections—primarily pyelonephritis, pyelitis and cystitis—when due to susceptible organisms. This efficacy is related to the unique mode of action against bacteria (see illustration), an action that, in effect, makes Bactrim a new type of antibacterial.

Bactrim interrupts the life cycle of susceptible bacteria

Unique mode of action interrupts the life cycle at two important points, thereby impeding the production of nucleic acids and proteins essential to these bacteria. These consecutive interruptions occur because sulfamethoxazole and trimethoprim resemble naturally existing substrates. By competitive replacement of these substrates, they inhibit further synthesis.





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Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

for chronic urinary tract infections

Before prescribing, please see complete product information on last page of advertisement.

Excellent clinical response in chronic urinary tract infections even with obstructive complications

A multiclinic, double-blind study* of response to a ten-day course of therapy in 471[†] patients with chronic urinary tract infections demonstrated the superiority of Bactrim. On the 10th day after initiation of therapy, 91.7% (of 168 patients) showed significant bacteriological response to Bactrim, compared with 81.2% (of 144 patients) to trimethoprim and 64.5% (of 155 patients) to sulfamethoxazole. More than half of these patients had obstructive complications.

Excellent response maintained

Bactrim proved equally impressive in maintaining this bacteriological response. In the above study, after a ten-day course of therapy with Bactrim, 68.4% of patients with chronic urinary tract infections *maintained* response for up to 42 consecutive days, compared with 59.7% with trimethoprim and 44.4% with sulfamethoxazole. These results are particularly noteworthy considering the number of patients with obstructive complications—cases regarded as being notoriously difficult to treat.

Prescribing considerations

Clinical Limitations: Currently, the increasing frequency of resistant organisms is a limitation of the usefulness of all antibacterial agents, especially in the treatment of chronic and recurrent urinary tract infections. Not recommended for children under twelve.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides. Pregnancy and during the nursing period.

Warnings and Precautions: Both sulfamethoxazole and trimethoprim have been reported to interfere with hematopoiesis. Complete blood counts should be done frequently. If a significant reduction in the count of any formed blood element is noted, Bactrim should be discontinued. Bactrim should be given with caution to patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. Maintain adequate fluid intake. Urinalyses with careful microscopic examination and renal function tests should be performed during therapy, particularly for those patients with impaired renal function.

Adverse Effects: Among the most common side effects are nausea, vomiting, rash, leukopenia and elevations in SGOT and creatinine.

Usual adult dosage: two tablets every twelve hours for 10 to 14 days; no loading dose required.

*Data on file, Hoffmann-La Roche Inc., Nutley, N.J. 07110

[†]4 patients not available for evaluation at day 10.

new **BACTRIM**TM

Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

for chronic urinary tract infections



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

Before prescribing, please consult complete product information on facing page.

Complete Product Information:

Description: Bactrim is a synthetic antibacterial combination product, available in scored light-green tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole.

Trimethoprim is 2,4-diamino-5-(3,4,5-trimethoxybenzyl) pyrimidine. It is a white to light-yellow, odorless, bitter compound with a molecular weight of 290.3.

Sulfamethoxazole is *N*-(5-methyl-3-isoxazolyl)sulfanilamide. It is an almost white in color, odorless, tasteless compound with a molecular weight of 253.28.

Actions: Microbiology: Sulfamethoxazole inhibits bacterial synthesis of dihydrofolic acid by competing with para-aminobenzoic acid. Trimethoprim blocks the production of tetrahydrofolic acid from dihydrofolic acid by binding to and reversibly inhibiting the required enzyme, dihydrofolate reductase. Thus, Bactrim blocks two consecutive steps in the biosynthesis of nucleic acids and proteins essential to many bacteria.

In vitro studies have shown that bacterial resistance develops more slowly with Bactrim than with trimethoprim or sulfamethoxazole alone.

In vitro serial dilution tests have shown that the spectrum of antibacterial activity of Bactrim includes the common urinary tract pathogens with the exception of *Pseudomonas aeruginosa*. The following organisms are usually susceptible: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis* and indole-positive proteus species.

Representative Minimum Inhibitory Concentration Values for Bactrim-Susceptible Organisms (MIC—mcg/ml)				
Bacteria	Trimethoprim alone	Sulfamethoxazole alone	TMP/SMX (1:20) TMP SMX	
<i>Escherichia coli</i>	0.05—1.5	1.0 —245	0.05—0.5	0.95— 9.5
<i>Proteus</i> spp. indole positive	0.5 —5.0	7.35 —300	0.05—1.5	0.95—28.5
<i>Proteus mirabilis</i>	0.5 —1.5	7.35 — 30	0.05—0.15	0.95— 2.85
<i>Klebsiella-Enterobacter</i>	0.15—5.0	0.735—245	0.05—1.5	0.95—28.5

Human Pharmacology: Bactrim is rapidly absorbed following oral administration. The blood levels of trimethoprim and sulfamethoxazole are similar to those achieved when each component is given alone. Peak blood levels for the individual components occur one to four hours after oral administration. The half-lives of sulfamethoxazole and trimethoprim, 10 and 16 hours respectively, are relatively the same regardless of whether these compounds are administered as individual components or as Bactrim. Detectable amounts of trimethoprim and sulfamethoxazole are present in the blood 24 hours after drug administration. Free sulfamethoxazole and trimethoprim blood levels are proportionately dose-dependent. On repeated administration, the steady-state ratio of trimethoprim to sulfamethoxazole levels in the blood is about 1:20.

Sulfamethoxazole exists in the blood as free, conjugated and protein-bound forms; trimethoprim is present as free, protein-bound and metabolized forms. The free forms are considered to be the therapeutically active forms. Approximately 44 percent of trimethoprim and 70 percent of sulfamethoxazole are protein-bound in the blood. The presence of 10 mg percent sulfamethoxazole in plasma decreases the protein binding of trimethoprim to an insignificant degree; trimethoprim does not influence the protein binding of sulfamethoxazole.

Excretion of Bactrim is chiefly by the kidneys through both glomerular filtration and tubular secretion. Urine concentrations of both sulfamethoxazole and trimethoprim are considerably higher than are the concentrations in the blood. When administered together as in Bactrim, neither sulfamethoxazole nor trimethoprim affects the urinary excretion pattern of the other.

Indications: Chronic urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, and, less frequently, indole-positive proteus species).

Important note: Currently, the increasing frequency of resistant organisms is a limitation of the usefulness of all antibacterial agents, especially in the treatment of chronic and recurrent urinary tract infections.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides. Pregnancy and during the nursing period (see Reproduction Studies).

Warnings: Deaths associated with the administration of sulfonamides have been reported from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias. Experience with trimethoprim alone is much more limited, but it has been reported to interfere with hematopoiesis in occasional patients. In elderly patients concurrently receiving certain diuretics, primarily thiazides, an increased incidence of thrombopenia with purpura has been reported.

The presence of clinical signs such as sore throat, fever, pallor, purpura or jaundice may be early indications of serious blood disorders. Complete blood counts should be done frequently in patients receiving Bactrim. If a significant reduction in the count of any formed blood element is noted, Bactrim should be discontinued.

At the present time, there is insufficient clinical information on the use of Bactrim in infants and children under 12 years of age to recommend its use.

Precautions: Bactrim should be given with caution to patients with impaired renal or hepatic function, to those with possible folate deficiency and to those with severe allergy or bronchial asthma. In glucose-6-phosphate dehydrogenase-deficient individuals, hemolysis may occur. This reaction is frequently dose-related. Adequate fluid intake must be maintained in order to prevent crystalluria and stone formation. Urinalyses with careful microscopic examination and renal function tests should be performed during therapy, particularly for those patients with impaired renal function.

Adverse Reactions: For completeness, all major reactions to sulfonamides and to trimethoprim are included below, even though they may not have been reported with Bactrim.

Blood dyscrasias: Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia.

Allergic reactions: Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis.

Gastrointestinal reactions: Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis.

C.N.S. reactions: Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness.

Miscellaneous reactions: Drug fever, chills, and toxic nephrosis with oliguria and anuria. Periarteritis nodosa and L. E. phenomenon have occurred.

The sulfonamides bear certain chemical similarities to some goitrogens, diuretics (acetazolamide and the thiazides) and oral hypoglycemic agents. Goiter production, diuresis and hypoglycemia have occurred rarely in patients receiving sulfonamides. Cross-sensitivity may exist with these agents. Rats appear to be especially susceptible to the goitrogenic effects of sulfonamides, and long-term administration has produced thyroid malignancies in the species.

Dosage and Administration: Not recommended for use in children under 12 years of age.

The usual adult dosage is two tablets every 12 hours for 10 to 14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	2 tablets every 24 hours
Below 15	Use not recommended

How Supplied: Tablets, containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 1000; Prescription Paks of 40, available singly and in trays of 10. Imprint on tablets: ROCHE 50.

Reproduction Studies: In rats, doses of 533 mg/kg sulfamethoxazole or 200 mg/kg trimethoprim produced teratological effects manifested mainly as cleft palates. The highest dose which did not cause cleft palates in rats was 512 mg/kg sulfamethoxazole or 192 mg/kg trimethoprim when administered separately. In two studies in rats, no teratology was observed when 512 mg/kg of sulfamethoxazole was used in combination with 128 mg/kg of trimethoprim. However, in one study, cleft palates were observed in one litter out of 9 when 355 mg/kg of sulfamethoxazole was used in combination with 88 mg/kg of trimethoprim.

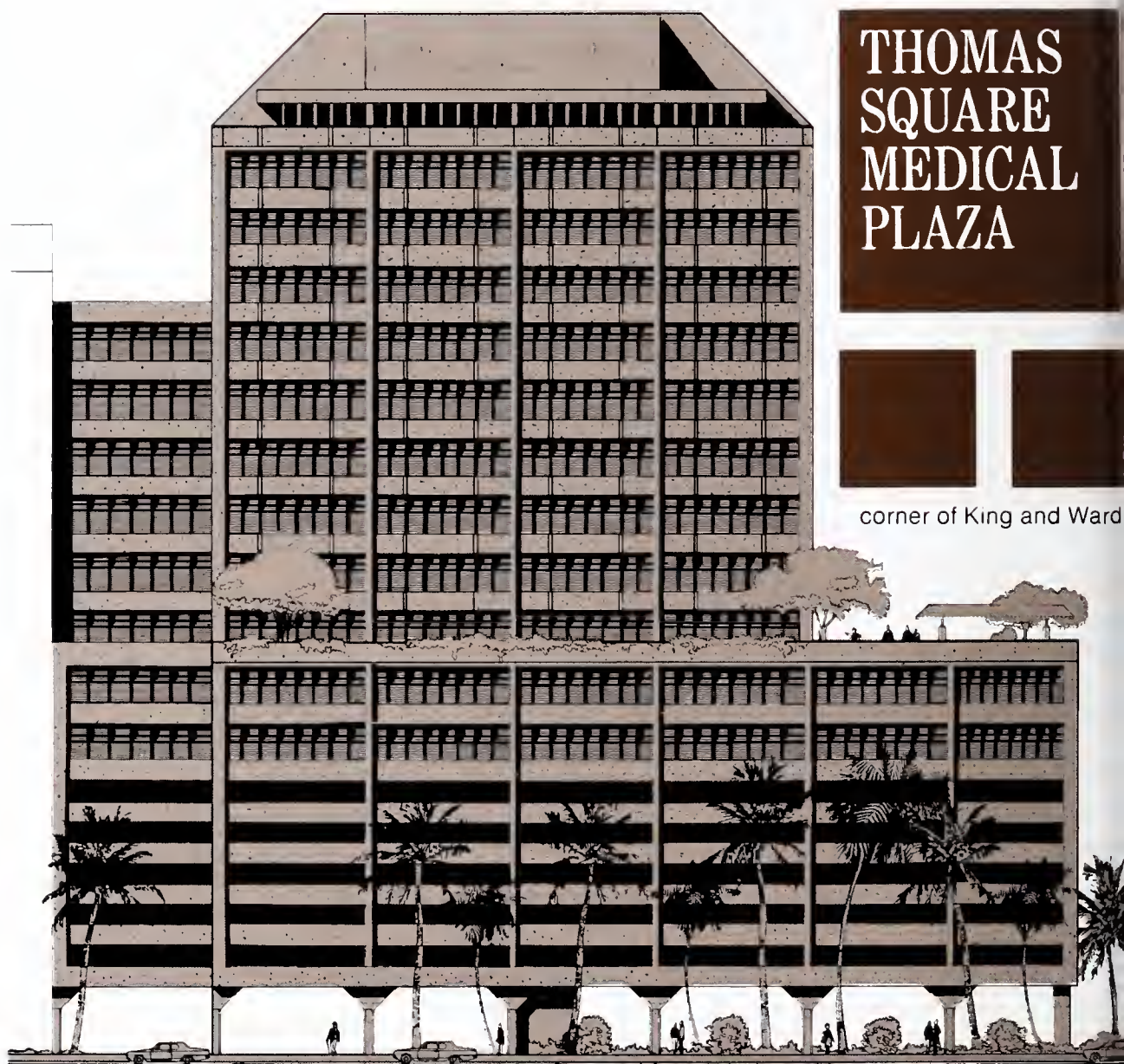
In rabbits, trimethoprim administered by intubation from days 8 to 16 of pregnancy at dosages up to 500 mg/kg resulted in higher incidences of dead and resorbed fetuses, particularly at 500 mg/kg. However, there were no significant drug-related teratological effects.

BACTRIM™
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This Scanning Electron Micrograph (7000 \times) is the first 3-dimensional view of a cell in an ulcerated duodenum. The center is completely denuded, surrounded by fairly well-preserved microvilli. This SEM photomicrograph was taken from a scientific exhibit which won the Hull Award as the "best exhibit on original research or instruction on a medical subject" at the A.M.A. Clinical Convention, November 26-29, 1972, in Cincinnati, Ohio.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Symptomatic relief of hypersecretion, hypermotility and anxiety and tension states associated with organic or functional gastrointestinal disorders; and as adjunctive therapy in the management of peptic ulcer, gastritis, duodenitis, irritable bowel syndrome, spastic colitis and mild ulcerative colitis.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-

prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been

The Tireless Man

whose duodenal ulcer needs a rest

Up early, home late, often with a scratch pad filled with notes, figures, plans. A few hours' sleep and then another long day. This is often the routine of the tireless hard-driver, one-man committee with enough overwork and stress to wear out several men. But his duodenal ulcer may warn him with sharp discomfort that he had better ease up, let some things go, and give himself—and his ulcer—a rest.

The need to reduce G.I. hypermotility and hypersecretion

Overwork together with overanxiety are often principal factors in exacerbating a duodenal ulcer. To help reduce the increased gastric secretions and hypermotility, therapy may need to include treatment for associated undue anxiety—which is where dual-action Librax can be highly useful.

The dual nature of Librax

Only Librax combines, in one capsule, the antianxiety action of Librium® (chlordiazepoxide HCl) and the antisecretory action of Quarzan® (clidinium Br). As an adjunct to a therapeutic regimen, Librax may help relieve both somatic and associated anxiety factors that often contribute to the exacerbation of duodenal ulcer symptoms.

Up to 8 capsules daily in divided doses

For optimal response, dosage should be adjusted to your patient's requirements—1 or 2 capsules, 3 or 4 times daily. *Rx*: Librax #35 for initial evaluation of patient response to therapy. *Rx*: Librax #100 for follow-up therapy—this prescription for 2 or 3 weeks' medication can help maintain patient gains while permitting less frequent visits.

For the anxiety-linked symptoms of duodenal ulcer

adjunctive

Librax®



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes

in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



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conjugated estrogens. Assurance of
quality for you and your patients.

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BRIEF SUMMARY
(For full prescribing information, see package circular.)

PREMARIN®
(Conjugated Estrogens Tablets, U.S.P.)

Indications: Based on a review of PREMARIN Tablets by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications for use as follows:
Effective: As replacement therapy for naturally occurring or surgically induced estrogen deficiency states associated with: the climacteric, including the menopausal syndrome and postmenopause; senile vaginitis and kraurosis vulvae, with or without pruritus. **"Probably" effective:** For estrogen deficiency-induced osteoporosis, and only when used in conjunction with other important therapeutic measures such as diet, calcium, physiotherapy, and good general health-promoting measures. Final classification of this indication requires further investigation.

Contraindications: Short acting estrogens are contraindicated in patients with (1) markedly impaired liver function; (2) known or suspected carcinoma of the breast, except those cases of progressing disease not amenable to surgery or irradiation occurring in women who are at least 5 years postmenopausal; (3) known or suspected estrogen-dependent neoplasia, such as carcinoma of the endometrium; (4) thromboembolic disorders, thrombophlebitis, cerebral embolism, or in patients with a past history of these conditions; (5) undiagnosed abnormal genital bleeding.

Warnings: Estrogen therapy should not be given to women with recurrent chronic mastitis or abnormal mammograms except, if in the opinion of the physician, it is warranted despite the possibility of aggravation of the mastitis or stimulation of undiagnosed estrogen-dependent neoplasia.

The physician should be alert to the earliest manifestations of thrombotic disorders (thrombophlebitis, retinal thrombosis, cerebral embolism and pulmonary embolism).

If these occur or are suspected, estrogen therapy should be discontinued immediately.
Estrogens may be excreted in the mother's milk and an estrogenic effect upon the infant has been described. The long range effect on the nursing infant cannot be determined at this time.
Hypercalcemia may occur in as many as 15 percent of breast cancer patients with metastases, and this usually indicates progression of bone metastases. This occurrence depends neither on dose nor on immobilization. In the presence of progression of the cancer or hypercalcemia, estrogen administration should be stopped.
A statistically significant association has been reported between maternal ingestion of diethylstilbestrol during pregnancy and the occurrence of vaginal carcinoma in the offspring. This occurred with the use of diethylstilbestrol for the treatment of threatened abortion or high risk pregnancies. Whether or not such an association is applicable to all estrogens is not known at this time. In view of this finding, however, the use of any estrogen in pregnancy is not recommended.
Failure to control abnormal uterine bleeding or unexpected recurrence is an indication for curettage.
Precautions: As with all short acting estrogens, the following precautions should be observed:
A complete pretreatment physical examination should be performed with special reference to pelvic and breast examinations.
To avoid prolonged stimulation of the endometrium and breasts in climacteric or hypogonadal women, estrogens should be administered cyclically (3 week regimen with 1 week rest period—withdrawal bleeding may occur during rest period).
Because of individual variation in endogenous estrogen production, relative overdosage may occur which could cause undesirable effects such as abnormal or excessive uterine bleeding, mastodynia and edema.
Because of salt and water retention associated with estrogenic anabolic activity, estrogens

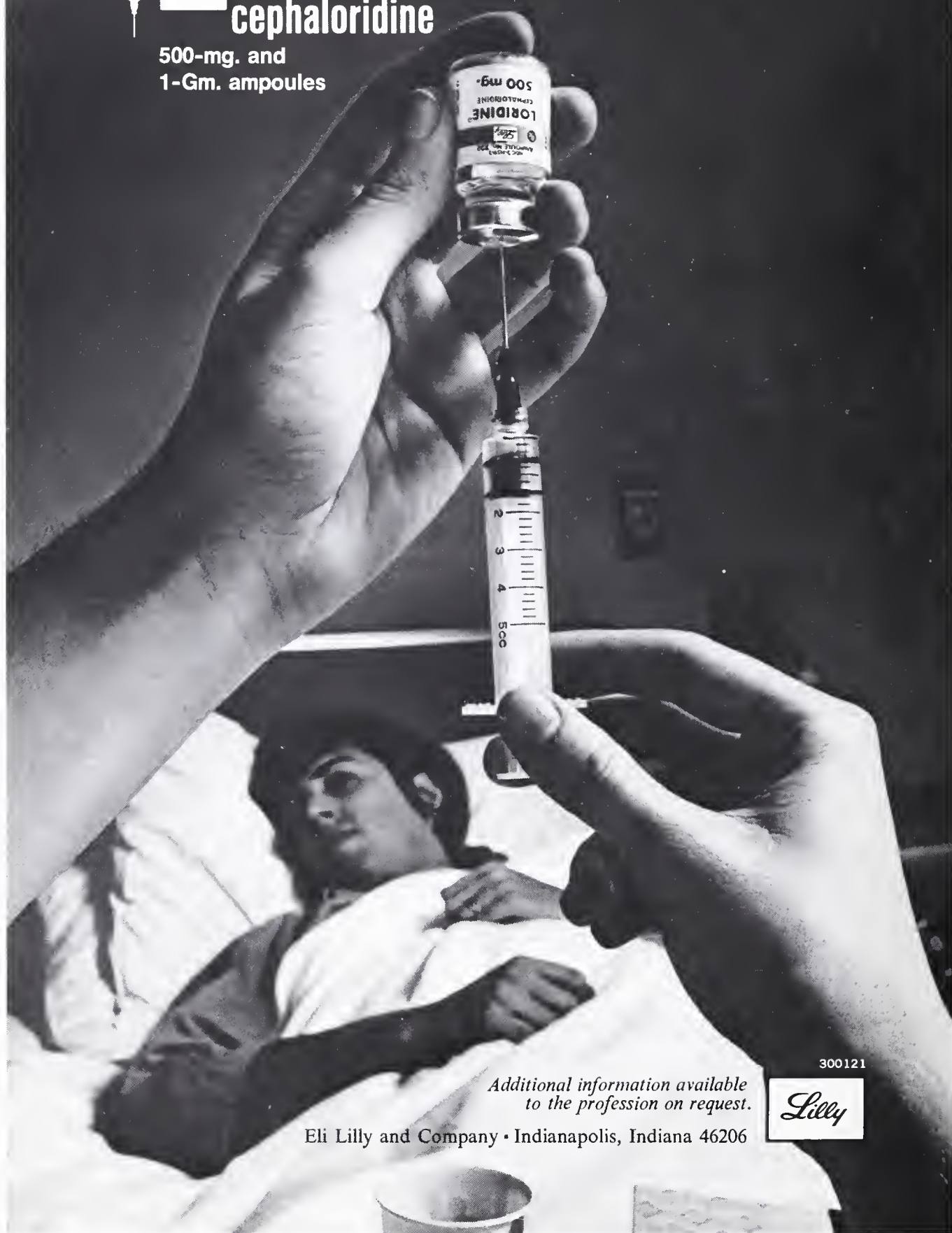
should be used with caution in patients with epilepsy, migraine, asthma, cardiac, or renal disease.
If unexplained or excessive vaginal bleeding should occur, reexamination should be made for organic pathology.
Pre-existing uterine fibromyomata may increase in size while using estrogens; therefore, patients should be examined at regular intervals while receiving estrogenic therapy.
The pathologist should be advised of estrogen therapy when relevant specimens are submitted.
Because of their effects on epiphyseal closure, estrogens should be used judiciously in young patients in whom bone growth is incomplete.
Prolonged high dosages of estrogens will inhibit anterior pituitary functions. This should be borne in mind when treating patients in whom fertility is desired.
The age of the patient constitutes no absolute limiting factor, although treatment with estrogens may mask the onset of the climacteric.
Certain liver and endocrine function tests may be affected by exogenous estrogen administration. If test results are abnormal in a patient taking estrogen, they should be repeated after estrogen has been withdrawn for one cycle.
Adverse Reactions: The following adverse reactions have been reported associated with short acting estrogen administration:
nausea, vomiting, anorexia
gastrointestinal symptoms such as abdominal cramps and bloating
breakthrough bleeding, spotting, unusually heavy withdrawal bleeding (See DOSAGE AND ADMINISTRATION)
breast tenderness and enlargement
reactivation of endometriosis
possible diminution of lactation when given immediately postpartum
loss of libido and gynecomastia in males
edema
aggravation of migraine headaches
change in body weight (increase, decrease)
headache
allergic rash
hepatic cutaneous porphyria becoming manifest

Dosage and Administration: PREMARIN should be administered cyclically (3 weeks of daily estrogen and 1 week off) for all indications except selected cases of carcinoma and prevention of postpartum breast engorgement.
Menopausal Syndrome—1.25 mg. daily, cyclically. Adjust dosage upward or downward according to severity of symptoms and response of the patient. For maintenance, adjust dosage to lowest level that will provide effective control.
If the patient has not menstruated within the last two months or more, cyclic administration is started arbitrarily. If the patient is menstruating, cyclic administration is started on day 5 of bleeding. If breakthrough bleeding (bleeding or spotting during estrogen therapy) occurs, increase estrogen dosage as needed to stop bleeding. In the following cycle, employ the dosage level used to stop breakthrough bleeding in the previous cycle. In subsequent cycles, the estrogen dosage is gradually reduced to the lowest level which will maintain the patient symptom-free.
Postmenopause—as a protective measure against estrogen deficiency-induced degenerative changes (e.g. osteoporosis, atrophic vaginitis, kraurosis vulvae)—0.3 mg. to 1.25 mg. daily and cyclically. Adjust dosage to lowest effective level.
Osteoporosis (to retard progression)—usual dosage 1.25 mg. daily and cyclically.
Senile Vaginitis, Kraurosis Vulvae with or without Pruritus—0.3 mg. to 1.25 mg. or more daily, depending upon the tissue response of the individual patient. Administer cyclically.
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*Similarities between fetal
and tumor tissue are noted.*

Immunochemical and Immunopathological Studies of Trophoblast Antigens

*Preliminary Results Using a Crude Placental Extract**

HARRY S. PARK, VERNON T. OI,
and M. MITSUO YOKOYAMA, M.D., Honolulu

● *In 1932, Hirszfeld and Halber¹ reported antigenic similarity between human carcinomas and human embryos in their study comparing the cross-reactivity of rabbit antisera against extracts of both tissues. This early report suggested the occurrence of a re-expression of fetal constituents by mature tissue undergoing malignant transformation. It was not until the past decade that further reports on the expression and synthesis of fetal constituents by human neoplastic tissue have appeared.*

SOME OF the better confirmed constituents include: (1) α_1 -feto-globulin associated with hepatoma;²⁻⁴ (2) carcinoembryonic antigen (CEA) associated with cancer of the colon;⁵⁻⁷ (3) fetal sulfoglycoproteins found in gastric juice of carcinoma of the stomach;^{8, 9} (4) α_2 H ferroprotein in the sera of children with a variety of cancerous conditions;¹⁰ and (5) placental alkaline phosphatase (Regan isoenzyme) from various malignancies.^{11, 12}

There have been suggestions that some of these constituents cross the placental barrier in maternal circulation. Gold¹³ reported a humoral immune response by the maternal host to CEA predominantly in the first and second trimesters of gestation. Subsequently, Tal and his co-workers^{14, 15} described an agglutinating factor in the sera of gravid women capable of agglutinating a variety of homologous tumor cell suspensions. The agglutinating factor, T-globulin, could be absorbed by the placental tissue homogenate as well as tumor cells.

While much of the work on the relation be-

tween fetal biology and tumor pathogenesis has concentrated on embryonic products or antigens,^{16, 17} the position of the trophoblast as integral to embryonic development has been overlooked as a possible source of cancer specific antigens. Tal's work clearly defines such antigenicity and cross-reactivity between tumor cells and placental trophoblast cells. The present paper describes the initial attempt and preliminary results of elucidating trophoblastic constituents that may cross-react with constituents expressed by neoplastic tissue.

Materials and Methods

Normal, full term, human placentas were obtained from Kapiolani Maternity & Gynecological Hospital and Kaiser Foundation Hospital, Honolulu, Hawaii.

PREPARATION OF CRUDE PLACENTAL EXTRACT. Placentas were immediately perfused through the umbilical vein with ice cold phosphate buffered saline, pH 7.2. Cord and amnion were removed and the tissue cut and homogenized for 10 minutes at 4°C in a Waring blender. The homogenate was then centrifuged at 2500 rpm for 20 minutes at 4°C. The resulting sediment was resuspended in an equal volume (w/v) of buffered saline and 50 ml aliquots were subjected to ultrasonic vibration at 50 kc per second for three minutes in an ice bath.

The tissue was dehydrated twice with four volumes of acetone and subsequently four volumes of ether were used to extract soluble material from the dry tissue. After the solvent was removed, the tissue was resuspended in 30 ml of pyridine for every gram of dry weight. The supernatant obtained after filtration, was then dialyzed against running tap water for two days. This material was

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lyophilized and a one percent suspension in an ethanol solution (w/v) was centrifuged at 10,000g for five minutes. The resulting supernatant was taken to be crude placental extract and the original "antigen" concentration.

Anthrone reaction and thin layer chromatography on silica gel G (Merck) for preliminary characterization of the extract was carried out.

SERUM. Sera from patients with a variety of clinically diagnosed cancers and other diseases encompassing a range of age groups of both sexes were obtained from Kuakini Hospital and other local hospitals in Honolulu. The sera were not distinguished in those patients undergoing chemotherapy or other treatment. Gravid women's sera were supplied by Kapiolani Maternity Hospital. Normal male and nongravid women's sera were obtained from the Blood Bank of Hawaii and employees of local medical organizations. Sera was also obtained from sheep, rabbits, horses, rats, cats, and dogs.

All sera were inactivated at 56°C for 30 minutes and stored at -20°C prior to use.

COMPLEMENT FIXATION TEST (CFT). A modification of the method of Kabat and Mayer described by Donnelley¹⁸ was used. Serial dilutions of crude placental extract and test serum in a checkerboard pattern was carried out for each test. Anticomplementary activities of both "antigen" and test sera were observed and adjustments made in reading results. The original "antigen" concentration was that described above as crude placental extract.

HEMAGGLUTINATION INHIBITION. Anti-A and anti-B sera were obtained from normal blood bank donors. Anti-H was prepared from *Ulex europaeus* seeds (lectin) and anti-Le^a and anti-Le^b sera were supplied by Dr. B. P. L. Moore, Director of the Canadian Red Cross. All reagents were adjusted to a titre of 1:8 against human red cells possessing corresponding antigens. The crude placental extract was mixed with an equal volume of each reagent and placed at 25°C for two hours, then at 5°C overnight. A two percent red cell suspension of corresponding blood type was added and incubated at 25°C for testing of ABH activity and at 15°C for Lewis antigen determination. Agglutination was read after centrifugation at 100 rpm for one minute.

HL-A ABSORPTION. Histocompatibility antigens in the crude placental extract were tested for by absorption of the extract with monospecific antisera against HL-A 1, 2, 3, 5, 7, 8, 9, 10, 11, 12 and 13 antigens obtained from the National Institutes of Health, Bethesda, Maryland and at this laboratory. Equal volumes of the crude extract and each antiserum were mixed and incubated at 25°C for two hours, then at 5°C overnight. A

lymphocytotoxicity test¹⁹ was then applied to determine any absorption of antibody activity against lymphocytes possessing known HL-A types.

Results

Approximately 25 mg of crude lyophilized substance was obtained from 450 gm of placenta using an ether-pyridine extraction method. Preliminary chemical characterization of the extract constituents in part consists of a highly unsaturated fatty acid and a carbohydrate moiety. Thin layer chromatography reveals at least two spots with iodine vapor; the more prominent is located at half the ascending solvent front.

In the complement fixation test the extract showed an anticomplementary activity up to a dilution of 1:40 of the original "antigen" as previously described, depending upon the lot preparation. The concentration of the extract used for CFT was always predetermined by testing for its anticomplementary activity.

Both normal human and cancer patients' sera also demonstrated anticomplementary activity generally up to the serum dilution of 1:4. There were no distinct differences in the concentration of anticomplementary activity between normal and cancer sera.

Using CFT, the concentration of the "antigen" at 1:10 to 1:30 dilution was most satisfactory for detection of antibody in serum. Two hemolytic units of guinea pig serum complement and sheep cells sensitized with two units of hemolysin as indicator were found to best demonstrate the apparent results of differentiating cancer and normal sera.

TABLE 1.—Results of complement fixation test for antibody in various sera against the crude placental extract.

DIAGNOSIS	NO. CASES	NO. POS.	PERCENT POS.
Carcinoma of the stomach	33	24	
colon	15	11	
lung	8	5	
kidney	5	3	
breast	4	2	
female genital tract	6	4	
Other cancer	15	6	
	86	55	64%
Non-gravid women	10	0	
Normal male	40	5	
	50	5	10%
Gravid women	15	13	
Cord	6	1	
Other diseases	7	2	
Animal	10	0	

Table 1 shows the results of CFT with random serum samples using the crude placental extract. Of 86 cases of sera from patients with various types of carcinoma, 55 (64%) showed distinct positive reactions. The placental extract did not distinguish specificity or higher association with any particular type of cancer.

In contrast with cancer sera, 50 normal human serum samples were tested and only five (10%) showed positive reactions. These five cases showed an antibody titre similar to positive reactions when cancer sera were tested. The average antibody titre was 1:16.

Fifteen gravid women's sera were tested with CFT and 13 demonstrated an antibody titre which was generally higher (average was 1:64) than that of cancer patients' and positive normal sera. Sera from patients with other diseases and animal sera tested showed low positive results.

Absorption tests of placental extract with anti-serum against ABH and Lewis blood group and HL-A tissue antigens were negative, indicating the crude placental extract did not contain these substances.

Discussion

Gold¹³ and Tal¹⁴ have demonstrated a humoral antigenic expression of tumor-associated fetal constituents in the sera of cancer patients and pregnant women. The present paper described the presence of a humoral immune response by cancer patients and gravid women to a crude placental extract. The extract is anthrone positive, but results on thin layer chromatography are inconclusive until comparative standards are obtained. The nature of the extraction procedure suggests that this material is mainly composed of membrane associated glycolipids.

The complement fixation test described, using the crude extract, may be detecting Tal's T-globulin or a heterologous group of antibody. In this preliminary communication, it is only possible to claim that the extract does not contain ABH or Lewis blood group substances or histocompatibility antigens. However, barring other non-specific activity, the crude extract seems able to distinguish the presence of antibody in cancer patients and gravid women and its absence in other diseases and normal subjects. When follow-up work is completed, normal subjects showing positive results may be found to represent early cancer detection.

Similar to Tal's results,¹⁴ this test system detects a variety of cancers. However, this must be restricted to those cancers presented until more extensive survey work can be completed. Since a crude extract is being used, further isolation and characterization of individual constituents apply-

ing other methods is planned. Presently procedures using chromatography on Florisil and silicic acid columns are being investigated.

The time of appearance of the antibody must also be systematically determined, especially throughout the gestation period. At this time, the role and significance of this antibody can only be speculated upon. The occurrence of the antibody in cancer patients is being examined to determine the consequences of chemotherapy and surgical resection of tumor. The relationship of the presence or absence of the antibody before and after treatment to the prognosis for the patient is also being studied.

In this paper a complement fixation test is used for antibody detection. The development of a passive hemagglutinin test and radio-immunoassay of the active placental substance is underway. A skin test may also show promise.

The general implications of a re-expression of fetal or trophoblastic constituents, whatever the etiology, present some interesting problems. In the course of differentiation and specialization, certain constituents of fetal tissue are repressed and do not reappear in the normal adult. The immunologic status of these fetal constituents in the adult, although not overtly expressed, presents an enigma, since it is not known whether they are recognized as self or non-self. Similarly, the trophoblast, which nurtures the fetus and is derived from the same tissue as the embryo,^{20, 21} possesses constituents which are only presented to the fetus in gestation. The re-introduction of trophoblast constituents or the re-expression of fetal constituents in a neoplasm would present a disastrous dilemma to the tumor host. It might be possible that both of these constituents could provide for an "ad hoc autoimmune response" to genetically similar antigens with the consequent production of antibody. This may be the response measured with the crude placental extract thus far isolated.

On the other hand, the maternal host seemingly exhibits tolerance or enhancement to the homograft.²² The graft is functionally malignant and is identified as trophoblast tissue.^{23, 24} A close resemblance of this tumor-like condition with the "tolerance or enhancement" exhibited by tumor-bearing hosts to their tumors that eventually become re-expressed fetal and perhaps trophoblastic constituents. It is believed that a possible role of placental or more especially trophoblastic constituents is to allow the successful establishment of the conceptus as a homograft. These constituents may be weakly antigenic, or, as soon as they are bound by specific antibodies in the host, present weak sources of antigenic stimulation.

This entire phenomenon now introduces the immunology of pregnancy to tumor immunology with its problems of the role and position of the placenta in pregnancy and the difficulties it presents in explaining the phenomenon of the fetus as a homograft.

It is the intention of the authors to investigate further the position of the human placenta (especially trophoblast cells) and its nature and behavior in relation to tumor and transplantation immunology.

Summary

The present paper describes the initial examination of trophoblast tissue and its relation to cancer. A crude extraction procedure was applied to human placental tissue and preliminary results are reported on the ability of this extract to distinguish sera from cancer patients and gravid women from non-cancerous and other diseases and normal sera.

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*On putting the antibiotic
where it will do the most good.*

Regional Arterial Perfusion, A New Approach To Postoperative Sternal Infection

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● *A new technique for the treatment of postoperative sternal infection is described. Such an infection was successfully treated by infusing gentamicin solution through a catheter which remained in position in the right internal mammary artery for a period of two weeks.*

THE TREATMENT of infections secondary to median sternotomy incisions presents a difficult therapeutic problem. The following case report illustrates the use of regional arterial perfusion with antibiotics in its management.

Report of Case

A 63-year-old man underwent left ventricular aneurysmectomy in February, 1972, for recurrent ventricular tachycardia unresponsive to antiarrhythmic agents. Preoperative angiographic studies had demonstrated severe proximal narrowing in the anterior descending coronary artery with an aneurysm in the apical region of the left ventricle. A mural thrombus had been demonstrated within the aneurysm. The operation was performed through a median sternotomy. The sternum was noted to be rather thin, and more than the usual quantity of bone wax was needed to control bleeding from the marrow cavity.

His immediate postoperative course was uneventful. There was no recurrence of his arrhythmia, then or later. He received cephalothin, 1 gram intravenously every six hours, and on the fifth postoperative day, the antibiotic was changed to cephalcxin, 250 mg every six hours p.o. However, the usual postoperative temperature elevation persisted and by the 10th postoperative day

he continued to have spiking fever of 101° to 102°. There was increasing pain in the sternum and the wound became reddened with small areas of fluctuation. On the 12th postoperative day, the wound was opened superficially, revealing a thin yellowish exudate, which on culture grew *Pseudomonas aeruginosa*, reported to be sensitive to tetracycline, ampicillin, colistin, and gentamicin. Ampicillin, 500 mg orally every six hours, was started, but the temperature continued to be elevated with further breakdown and discharge from the wound. On the 21st postoperative day, colistin, 40 mg intramuscularly q.i.d. was substituted. The temperature remain unchanged, and on the 27th day, the dose of colistin was increased to 80 mg q.i.d. By the 30th day, his general condition had further deteriorated with temperature spikes still from 101° to 102°, and he was toxic. The wound continued to be exquisitely tender and to drain from multiple sinuses, from which repeated cultures showed persistent growth of the same *Pseudomonas* organism. The BUN had risen to 38 mg % and the creatinine to 3.7 mg %. Because of the patient's debilitation and deteriorating renal status, it was decided to attempt regional arterial perfusion with antibiotic solution, in the hope of delivering a high concentration to the site of infection with minimal systemic effects.

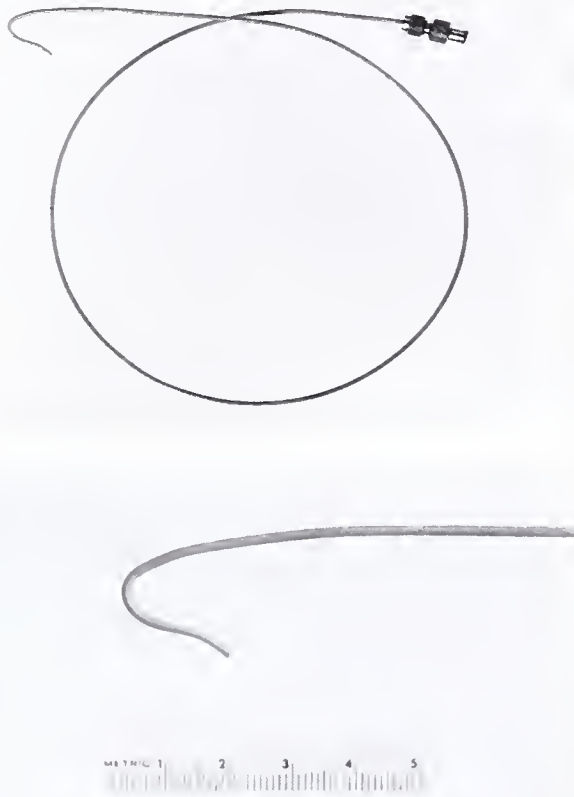
On the 35th postoperative day, left heart catheterization was performed via the right brachial artery using the Sones techniques.¹ The coronary arteries had not changed. The angiographic appearance of the left ventricle was considerably improved, the endsystolic volume being approximately half that which had been observed preoperatively. The Sones catheter was replaced with a pediatric Kifa catheter whose tip had been performed as in Figure 1. This tip was readily positioned in the right internal mammary artery, and the brachial arteriotomy was closed around the

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FIGURE 1.—Kifa catheter showing the curve used.



catheter with a purse string suture of 5-0 Ethiflex.

The patient was heparinized and gentamicin was perfused through the catheter using a Holter pump. For the first two days, he received 180 mg per day continuously over a 24-hour period and thereafter, 60 mg over a two hour period, three times a day, the dosage schedule being changed in order to achieve higher peak concentrations. When antibiotic was not being infused, the catheter was flushed continuously with 5% dextrose water solution.

The response to this treatment was dramatic. The temperature subsided over a five day period and the wound began to heal. His general condition improved and the BUN and creatinine began to fall. By the 39th postoperative day, he became afebrile and his temperature did not rise again. The infusion was continued for 13 days and gentamicin was given intramuscularly for another 4 days thereafter.

An angiogram performed shortly before the catheter was removed (Figure 2) showed that the catheter was still in position and that the internal mammary artery was patent. Following catheter withdrawal, a pressure bandage was applied. There was no significant bleeding and the right radial pulse remained easily palpable.

The patient was finally discharged 58 days after his operation, in good general condition, with the wound practically healed.

FIGURE 2.—Chest film showing catheter and contrast in the right internal mammary artery.



Discussion

The use of regional arterial perfusion is, of course, not new. It was initially employed to deliver cytotoxic agents for malignancies.² More recently, it has been used to infuse vasopressor substances in the control of gastrointestinal bleeding.³ Arterial perfusion with antibiotic solutions has previously been used for osteomyelitis of the bones of extremities,^{4, 5} but we are not aware of its prior use for sternal infection.

In general, sternal infections have been treated by either widely opening the wound and maintaining adequate drainage, or by early debridement with closure and continuous mediastinal irrigation with antibiotic solution.⁶ The former is poorly tolerated in an already debilitated patient, as the instability of the chest is attended by marked impairment of ventilation. The latter, although less incapacitating, requires reoperation, and thus adds to morbidity.

It is, of course, possible that changing the antibiotic alone might have accomplished the same end result in our patient. However, no response had been obtained following administration of maximal doses of other antibiotics to which the organism had been reported sensitive. Selective

infusion is believed to result in at least 100 fold greater concentration of antibiotic in the areas supplied by the right internal mammary artery than administration of the same total dose intravenously. Whether continuous or intermittent antibiotic perfusion is preferable remains speculative. Certainly the latter provides considerably higher peak concentrations.

The catheter remained in place for two weeks without complications. Potential hazards include thrombosis and superinfection, however with adequate heparinization and proper care to the cut-

down sites, these did not occur.

Having achieved cure of a sternal infection by this technique without complications, and with only minimal discomfort to the patient, we suggest that regional arterial perfusion may prove to be the best method of managing this dreaded complication of cardiac surgery.

Acknowledgment

We are indebted to Drs. Josef Rosch and Charles Dotter for their advice concerning the type of catheter to use for the perfusion.

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How much is it worth to prevent suicides?

Economic and Public Health Issues In Suicide Prevention

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● *Suicide is a major public health problem confronting us. In the United States there are at least 25,000 recorded suicide deaths annually. Moreover, for every completed suicide, there are eight to ten serious attempts. Elsewhere in the world the pattern is similar. At the present time, suicide is one of the first ten causes of death and the second killer after accidents among the younger age groups. On a broad scale, 3,000,000 persons in our nation have made suicide attempts on their lives. Unfortunately, 15% of these persons will later repeat the suicidal action.*

IN ORDER to stimulate suicide prevention activities and to meet the perpetual suicide threat throughout the United States, the National Insti-

tute of Mental Health launched the Center for Studies of Suicide Prevention (CSSP) in 1966. To a certain extent, the programs of the CSSP were implemented in terms of direct services (eg, growth of local suicide prevention centers), research and training projects, and publication materials on suicidology. However, by 1971, Harvey L. P. Resnik, Chief of the Center for Studies of Suicide Prevention, advocated a fundamental shift from suicide prevention toward the broad range of crisis intervention.

A major concern of public health has been to analyze related health programs in terms of applied economic theory. The purpose of this paper is to summarize economics in public health relevant to suicide prevention and to identify economic issues related to the persistent problems of suicide. In particular, we shall offer various economic alternatives: the Planning-Programming-

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Budgeting System (PPBS), principles of cost studies, and an economic common sense approach. It is hoped that suicidologists are already aware of the economic implications attached to suicide prevention activities and program formulations.

PPBS in Government Management

The immediate origins of PPBS can be traced to a Rand Corporation study group, which devoted years to analysis of defense policy problems after World War II. When the then Secretary of Defense, Robert McNamara, began to reorganize the Pentagon, he introduced PPBS as an approach to systematic decision-making regarding defense policy and resource allocations. In brief, PPBS seeks to apply knowledge and data to major issues in a meaningful way and to improve the normal decision process through raising and considering comparative costs, benefits, resource inputs, outputs, and effectiveness. As Jack W. Carlson explains: "The purpose is to achieve explicitness about objectives and outputs; to aggregate costs and programs according to objectives; to analyze benefits, outputs, and costs at whatever level of sophistication is possible; and to project the extent to which future options are mortgaged by past or present decisions. A key part of this is the development of overviews of program areas that display, insofar as possible, comparative data on related programs."¹ In August 1965, President Johnson ordered all principal government agencies to adopt similar systems. Accordingly, the Department of Health, Education and Welfare, of which NIMH is an integral part, assigned an assistant secretary for program coordination to develop and implement the PPBS structure.²

Starting with a program budget and information system, HEW began to identify the major objectives and sub-objectives of the department. Due to the multiple objectives of many programs, the program information system sorted out funds according to program objectives, population groups, types of activity, method of finance, and other means.

Evaluation of programs was based on measuring the output of individual programs. In some cases, it was impossible to develop a meaningful measure for program output. However, in other cases, program evaluation pinpointed how funds were spent for a particular objective and improved the average effectiveness of a program.

PPBS fostered systematic analysis of alternative ways of reaching objectives. In specific, analysis involved specifying objectives; outlining alternative ways of reaching the objectives; and compiling data on costs, benefits, advantages, and disadvantages of each. In this way, HEW was able to study

major options available for budget and legislation.

Systematic decision-making based on present and future priorities and alternative courses of action were translated into budget and legislative action. At the same time, new legislative thrusts from the White House often interfered with previous HEW decision making and delayed short and long range budget decisions.

Aaron Wildavsky has some relevant suggestions regarding the re-examination and selective use of PPBS.³ PPBS is not an appropriate tool to choose between vast national goals (health and defense) or for making tradeoffs between areas of policy relating to health, education, and welfare. Consensus on goals within a single area of policy is extremely difficult. Rather, PPBS is useful for analyzing narrowly defined areas of policy.

PPBS in Suicide Prevention

Inquiries to the Center for Studies of Suicide Prevention reveal that there is a partial employment of PPBS in isolated instances of particular NIMH programs. Calvin J. Frederiek, Assistant Chief for CSSP, reports that in the NIMH budget of under \$400 million, less than \$100 million has gone to training and manpower, \$200 million to Community Mental Health Centers; and \$100 million to other divisions which support basic research and training grants of particular center programs. Within each center or branch, research budgets are generally three to four times the size of training budgets, due to previous connection with the National Institute of Health, a research organization.⁴

Since primary prevention and research projects are crucial for identifying potential suicide-prone target groups,⁵ CSSP could make a case for PPBS along these lines. However, another economic approach to suicide prevention involves the application of cost studies to specific issues.

Economic Cost Principles in Suicide Prevention

In their survey of the economic value of human life, Dorothy P. Rice and Barbara S. Cooper point out that economists speak of value as the economic worth of a person as a productive member of society and the money value of man as the present value of his net future earning.⁶ Thus, economic cost principles based on this underlying assumption can be set forth.

First, the suicidologist-economist analyzes the problem of suicide in the United States according to direct costs (actual dollar expenditures for public and private care), indirect costs (economic loss of production, wage earning, working years), and total costs. Regarding direct costs, dollar ex-

penditures on suicide should be calculated according to state expenditures on maintenance (care and treatment) of suicide patients in public care hospitals, federal expenditures (VA, PHS, HEW, NIMH), and expenditures in non-profit and proprietary mental hospitals.⁷

In terms of indirect costs or loss in production, the suicidologist-economist seeks to specify the loss to society from resident patients in hospitals, loss due to a prolonged suicide condition and absenteeism, and future losses over a period of time.⁷

The suicidologist-economist tempers his cost studies with the awareness that there is a lack of adequate suicide data. For example, what constitutes a suicide attempt in terms of lethal intention? How can a suicidologist-economist measure the statistical accuracy of the recorded and unrecorded suicidal deaths, and hospitalized and non-hospitalized serious attempts? How valid are his statistics in light of the fact that coroners vary in their autopsy investigation and procedure of suicidal/accidental deaths?

The implications of suicide and monetary loss are:⁸ (1) premature suicidal death or the loss of an actual or potential productive unit (person) based on age, future income or estimated earnings; (2) suicidal problem and loss of production prediction based on duration of illness, age and sex, average earning during period of suicidal condition; (3) permanent disability or part of the value of the victim which has been destroyed by suicidal death or by a serious suicide attempt; (4) absenteeism as an industrial problem related to suicide; (5) population effects or the impact of suicide on size, age, sex, race, and locational patterns of the population; (6) treatment and allied costs in terms of primary, secondary, and tertiary prevention; and (7) avoidance costs, or how much we are willing to spend to avoid suicidal conditions (eg, minimizing significant losses, depression, and other suicide-inducing factors).

Various non-monetary costs have marked psychological effects on the victims or others. Suicidologists have studied the effect of suicide on family survivors and should be able to correlate pertinent data with the economic implications of suicidal death and the psychological impact of suicide on the serious attempt victim.

Applying a benefit-cost criteria to suicide, the community demand for providing treatment to suicidal persons is determined by the individuals in the community who would benefit from the service. The actual expected benefit any individual will receive from the treatment of a suicidal person depends on the number of groups he belongs to. The government can calculate the expected value of the suicide prevention service to each member of the community.

Thus, we need to estimate the cost of suicidal behavior among persons in the United States in a given year in terms of loss of life expectancy, unemployment, absenteeism, hospitalization, and various types of related accidents. No doubt, suicidal persons and their families would anticipate substantial gains from successful treatment and likewise taxpayers, employers, and auto drivers would receive substantial benefits.

Next, we need to estimate the marginal benefit and cost of treating seriously suicidal persons, and compare it with the cost of estimated successful preventive treatment. In the end, there would probably be a substantial net gain obtained by increasing the treatment of suicides and potential suicides.

An Economic Common Sense Model for Suicide Prevention

Apart from these mental health-economic problems related to suicide prevention, allow me to propose an economic and public health common sense model. A realistic objective of suicide prevention is not to expect the total eradication of suicide, but rather to determine the optimal combination between acute suicidal behavior (eg, of a significant and recent crisis and loss) and chronic cases of suicide (eg, terminal illness which culminate in suicide mercy-killing). The suicidologist-economist must find the level of suicide rate where marginal cost equals marginal benefit. On the one hand, suicide prevention may compensate a suicide attempter from committing suicide again on a time schedule basis. The longer a suicidal person stays alive, the more he and his family are compensated on a supportive and money basis. On the other hand, the more a person attempts suicide, his compensation ceases and an assessment tax is imposed on himself and his family. Of course, the suicidologist-economist should determine the preliminary combination of marginal cost-benefits for the compensation/non-compensation suicide prevention approach.

Another aspect of economics and suicide prevention is to ask how much people are willing to pay to have the problem of suicide reduced. If the suicidologist-economist could estimate how much it is worth to everyone, he could add up the amounts and obtain an estimate of the cost of a marginal level of suicide. Of course, this depends on whether you will be compensated or charged for the cost. At the same time, there would be the need to estimate the benefit level of suicide prevention.

Once the optimal suicide prevention level is determined, based on marginal cost and benefit, the suicidologist can begin to regulate the degree of

compensation or non-compensation to suicidal persons and their families. In this sense, such an approach reminds one of a behavior modification technique where acceptable behavior is reinforced and unacceptable behavior is extinguished. However, this therapeutic and economic policy should be flexible, according to the suicidal crisis situation.

Conclusion

The proposals in this article are in no sense in final form. Rather, our purpose has been to motivate suicidologists to consider economic theory applied to the field of suicide prevention. Economists with broad background in public health

and crisis intervention are needed to transmit these ideas into a pragmatic economic structure, which will contribute to the reduction of the suicide rate in the United States.

Acknowledgment

I wish to express my appreciation to Norman L. Farberow, Ph.D., Co-Director of the Los Angeles Suicide Prevention Center, for his review of this paper and to Richard Coffman, Acting Assistant Professor of Public Health, University of Hawaii School of Public Health, who diligently taught me Economics of Public Health in his course and encouraged me to apply economic principles to the field of suicide prevention.

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The ancient art is receiving new attention...

The Story of Acupuncture

ROBERT K. T. LIEM, M.D., *Honolulu*

● *The ancient Chinese made the observation that warriors who sustained arrow wounds appeared to recover spontaneously from diseases of organs remote from the wounds themselves. One suffering from peptic ulcer disease, for example, was reported to feel relieved after being hit in the leg; a shot into the arm was found to have cured migraine headache, and thus was born the idea of acupuncture.*

FURTHER OBSERVATION showed that these strategic points, according to the effect produced by acupuncture stimulation, could be divided into groups, each group of points being characteristically located in the body along longitudinal lines, or "meridians." There were 12 meri-

dians on each side of the body, each associated with an internal organ. A total of 365 acupuncture points, each about 2 mm in diameter, were designated at that time.

The earliest recorded study dates back to the reigns of Emperor Huang Ti, also known as The Yellow Emperor (2697-2597 B.C.). An important medical canon existed at that time, the Nei Ching, a record of dialogue between the Emperor and his physician, Ch'i Po. The art of acupuncture was discussed in this book.¹

Theory of Meridians

It was thought then that disease was caused by malfunction or imbalance of a supposed flow of "vital energy," or "Chi," of the diseased organ, along the meridians. Acupuncturists believed that by needling certain acupuncture points, normal flow of energy could be re-established, and normal

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Received for publication February 3, 1973.

function of the corresponding organ restored. Although it is thousands of years old, many acupuncturists still use this theory of meridians, or "Ching Lo" theory, to explain their work.

The practice of acupuncture became more popular at the beginning of the third century B.C., with the introduction of metal needles instead of the more painful fish bone, bamboo-shaft, or flint and jade needles.

After a long history in China, acupuncture found its way to Japan, introduced by the physician Jofku, in the year 250 B.C.,² and later spread throughout the entire Far East. It was first introduced to Europe by a Dutch surgeon, Wilhelm ten Rhyne, who wrote a thesis entitled "Dissertatio de Arthritide," published in London in 1683.³ This book received very little attention at that time, and it was not until the end of the 18th century that it received wide recognition and use, particularly in France and Germany.

Societies of Acupuncture

Today, there are several societies of acupuncture. Two of the best known are the International Society of Acupuncture, with headquarters in Paris, and the German Society of Acupuncture, which issues a bimonthly publication, *Deutsche Zeitschrift für Akupunktur*.

In 1959, a national conference on acupuncture, held in Shanghai, discussed at great length the physiological rationale of the 12 meridians, with inconclusive results.

Using fine electrical instruments, an Austrian physicist, Dr. Maresch, was able to demonstrate that electrical resistance between acupuncture points of the same meridian is lower than that between different meridians.⁴ By using special apparatus, Russian scientists have discovered various methods for the objective localization of acupuncture points. Cathode ray oscillograph, infrared radiation, and special stethoscopes have been used.⁵ Others have also observed changes in the electrocardiogram⁵ and electroencephalogram⁶ of patients treated by acupuncture. Increase of gastric peristalsis⁵ and changes in blood picture⁷ can also be shown following stimulation of certain acupuncture points. These suggest that the hypothetical meridians and points may have functional significance, but have not yet been demonstrated morphologically.

New Theory Advanced

In December, 1963, a new theory was advanced by Professor Kim Bong-han of Pyongyang University, North Korea. He claimed the discovery of a new system, acting differently from the vascular, lymphatic, or nervous system. The system consists of very delicate ductules in the subcutaneous tissue which corresponds to a considerable degree with the hypothetical meridians of acupuncture. Further, he also discovered in the reticular layer of the skin specifically constructed histological bodies, which on account of topographical considerations and physiological properties seem to be the possible anatomical substratum of acupuncture points. He called this the "Kyungrak" system,⁸ demonstrable only with special techniques, and only with vivisection. The disappearance of these structures with the death of the tissue might explain the fact that pathologists have not described them.

Based upon the rationale that if needling could relieve pain, it might also be used to replace anesthetics, clinical experiments were started by a young surgeon in Sian, China, in 1958, in tooth extraction and oral surgery, using the same points as those to relieve toothache.^{9, 10} The results were encouraging. In response to Party Chairman Mao Tse-tung's instruction to improve traditional Chinese medicine, more experiments were performed by doctors all over China, often on themselves. As a result, electro-acupuncture, more rapid and definite relief of pain, was produced and longer analgesia was obtained.

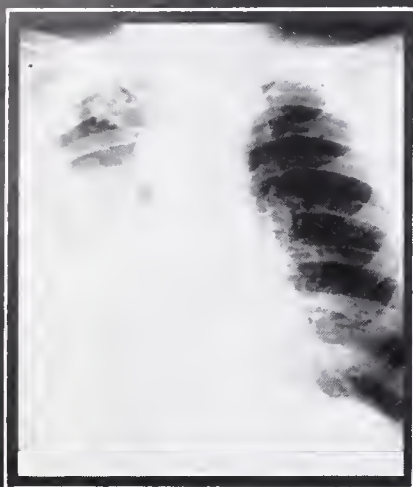
A new method of anesthesia had been created. More than 400,000 patients, including children and people in their eighties, have now received acupuncture anesthesia for all kinds of surgical procedures, with a success rate claimed to be about 90 percent.¹¹

Recent reports on acupuncture in this country, mostly based on brief observations, have created skeptical curiosity. Many believe that acupuncture may be of value, yet find it difficult to accept completely, as there is no satisfactory scientific explanation. Probably therapeutic acupuncture, because of time it requires and skepticism about how it works, will not be whole-heartedly accepted. However, acupuncture anesthesia most likely will have a place in America in the near future.

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Physician Dropouts

Over a hundred of Honolulu's nearly 800 physicians have dropped out of organized medicine, from—no doubt—a variety of motives. Some, out of indifference, had never entered it. Some perhaps left it out of genuine antipathy to what they conceived (wrongly more often than not) to be the AMA's position on socio-economic matters. Many probably left because they were unwilling to support, by their dues, programs they didn't feel were of any use to them.

Whatever their motives, these men are free-loaders, taking their full share of benefits of all the AMA programs except the five imaginative group insurance programs, for which they are ineligible, and giving nothing in return. We believe firmly that membership in the county medical society should be voluntary, not compulsory—and it is. But we believe it is the duty of every

responsible physician to join it and to support, with his dues, the myriad of important programs by which organized medicine contributes to the community.

Paul Bunyan is supposed to have remarked that he didn't mind if the fellow on the other end of the crosscut saw rode his end of the saw. He just didn't want him, he said, to drag his feet. Our dropouts are dragging their feet.

In a 3 x 5-inch, 40-page booklet, entitled *What Do You Get for Your Dues?*, the benefits and programs of the AMA are briefly described. Physicians who are not medical society members ought to reexamine their position, and read this booklet. It would be a powerful inducement to them to return to the fold.

HLA



**Best Wishes
for a
Happy Holiday Season**

The Borderline Patient

By Arlene Robbins Wolberg, 283 pp., Intercontinental Book Corporation, 1933.

ANYONE WHO has attempted to treat "borderline" patients, ie. patients with signs and symptoms of mental illness somewhere between neuroses and frank psychoses, knows the pitfalls and difficulties in dealing with this entity. Dr. Wolberg does not minimize these difficulties but presents a point of view which should be of help to all practicing psychotherapists. The early chapters give lucid historical background to the gradual recognition and delineation of the borderline syndrome. The author then goes on to discuss her analysis of the dynamics involved in the development of the problem and then describes her technique in treating these patients in psychoanalytically oriented psychotherapy. One of her principal conceptualizations is that in the borderline patient, "identification" serves as a neurotic defense, and is not a normal accompaniment of maturation. Because of the patient's inability to tolerate closeness and to deal with direct transference interpretations early in treatment, the author has developed a "projective therapeutic technique" which focuses on the patient's projections onto others. Discussions of these are less threatening to the patient and do not lead to increasing defensiveness on the patient's part. The frequency of therapy is held to one or two sessions a week over a long period of time with emphasis given ultimately to the working through of the sado-masochism which underlies the syndrome. This writer recommends this book as a worthwhile addition to the growing body of literature concerned with the borderline patient.

KWONG YEN LUM, M.D.

Atherosclerosis and Coronary Heart Disease

Edited by William Likoff, Bernard L. Segal and William Insull, Jr., under the general editorship of John H. Moyer, 532 pp., \$29.75, Grune & Stratton, Inc., 1973.

ONCE AGAIN the organizers of the Hahnemann Symposium brought together a group of experts to discuss another subject of timely interest. Through their many articles separated under topic headings of pathogenesis, pathology and pathophysiology of atherosclerosis and diagnosis, treatment and prognosis of angina pectoris and myocardial infarction, the contributors succeed in bringing the reader up-to-date on almost every aspect of what many consider our number one national health problem, coronary heart disease.

Photographs are of good quality and illustrations are easily understood. The selected bibliography is adequate for further amplification of articles which in some instances are quite abbreviated.

Those readers who have witnessed the progress of cardiovascular research over the past decade will readily discern the impact of the development of the coronary care unit, the emergence of rational therapy of arrhythmias and the establishment of coronary arteriography as a diagnostic tool. These same readers will no doubt commiserate with the researchers who still seem to be baffled by the enigma of atherosclerosis. This book should have great appeal to all internists, general practitioners, house staff and medical students.

VINCENT S. AOKI, M.D.

Malnutrition—Its Causation and Control

By John R. K. Robson in collaboration with Frances A. Larkin, Anita M. Sandretto and Bahram Tadayyon, 613 pp., Gordon and Breach, New York, 1972.

THE FACTUAL information in this text represents an extensive review of the literature, and the many references would be useful for further study. There are, however, several instances of outdated material, errors of documentation, and inconsistencies.

In addition to the extensive bibliography, these volumes include selected figures and graphs which are helpful for interpreting the narrative portions. However, the text is poorly organized, and we would not recommend it for physicians in practice, medical students, or dietitians.

JEAN H. HANKIN, Dr.P.H. and
IRA J. LICHTON, Ph.D.

The Principles and Practice of Medicine

By Drs. Harvey, Johns, Owens and Ross, 1,650 pp., \$24.50, Appleton-Century-Crofts, 1972.

TO ASK experienced physicians to consider a textbook of medicine recommended to first year medical students may appear presumptuous, but I can list several reasons why. Admittedly, it is not very useful as a reference book to review the clinical manifestations or the current therapy of a disease. There are numerous other books for these purposes. The authors have instead attempted to focus on the patient rather than the disease; emphasizing clinical problems, understanding of basic mechanisms, and a systematic approach to the patient.

First, we must realize that medicine is changing rapidly, partly due to newer diagnostic techniques, such as biochemical tests and nuclear scanning. The textbook tells us that we must be selective in the initial physical examination and that it has certain shortcomings. The entire book reflects practical considerations, presenting a fairly novel and fresh approach to clinical medicine.

This textbook has been extensively revised and provides an excellent tool for a review of general medicine, if you care to peruse it from cover to cover. The abundance of illustrations, the large print, the format of two columns per page, and above all the plain language employed, provide easy and pleasurable reading.

For those interested in undergraduate medical education, browsing through the book will familiarize you with methods employed to introduce medical students to clinical medicine. The emphasis on the patient in this day of highly specialized techniques and extensive expansion of basic scientific knowledge is reassuring.

Since the basic theme of this textbook was to present the Johns Hopkins Medical School approach to medical practice, it provides a fairly uniform discussion though you may discover certain areas which are not as well covered.

Reflecting the general trend toward specialization, textbooks of medicine themselves are becoming specialized, in terms of approach and complexity. I believe that medical students should familiarize themselves with more than one such volume, but Harvey's textbook is an excellent introduction to clinical medicine.

C. K. TASHIMA, M.D.

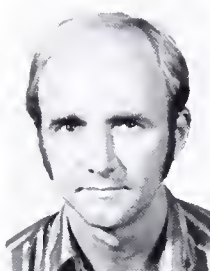
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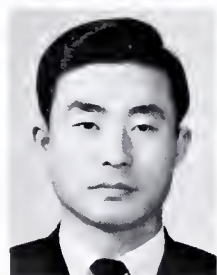
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COUNCIL MEETING

Friday, September 14, 1973 — 5:00 P.M.
Mabel Smyth Conference Room

CALL TO ORDER

The meeting was called to order by President Thomas P. Frissell. Present were: Drs. Winfred Y. Lee, William E. Iaconetti, R. Varian Sloan, Grover H. Batten, George H. Mills, Herbert Y. H. Chinn, George Goto, J. I. F. Reppun, Douglas B. Bell II, Albert C. K. Chun-Hoon, Ann B. Catts, Patrick J. Wash, Sakae Uehara, William W. L. Dang, DeWitt H. Smith, and Calvin C. J. Sia plus Dr. Ruth Matsuura for Dr. Verne Adams. Mr. Marvin Hall and Mr. Bernard Ho from HMSA were guests.

MINUTES

The minutes of the July 13, 1973, meeting were approved as circulated.

REPORT OF THE COMMITTEES AND COMMISSIONS

A. Ad Hoc Committee on HMA/HMSA/Medicaid Proposal: The Ad Hoc Committee presented a new draft of the Guidelines for the program and recommended approval. Representatives from HMSA were questioned at length regarding the proposal, the timeframe, and its relationship with PSRO activities.

ACTION:

A motion was made and seconded to refer this matter to the Foundation for Medical Care for further study and review. The motion was amended requesting the Foundation's reply within one week. The amendment failed to pass.

A motion of substitution was made and seconded disapproving the proposal. The chair ruled that the motion was in order. A motion to postpone action until PSRO guidelines are developed was made and seconded but was lost to a tie vote.

A motion to table this matter until January 1974 was made and seconded. The motion passed.

B. Commission on Internal Affairs: Mrs. Florence Goto and Mrs. Kay Benson of the Woman's Auxiliary requested advice regarding the Auxiliary's annual meeting. Since the HMA annual meeting will be held in October or November, the Auxiliary questioned whether they should also reschedule their meeting to coincide.

ACTION:

The Council generally agreed that it would be nice for the Auxiliary to hold their annual meeting at the same time as HMA but felt that the Auxiliary should do whatever they think is best.

Plans for the 1974 annual meeting are proceeding on schedule. The meeting is scheduled for October 28–November 1, 1974 at the Ilikai Hotel.

The AMA has asked HMA to submit nominees for the chairmanship of the Scientific Program Committee for the 1975 Clinical Session. The names of Drs. Siemsen, Wakai, and Uemura will be submitted pending their consent to the nomination.

C. Medical Education and Peer Review: The Medical Education Committee has been asked to work with the Board of Medical Examiners in response to a Senate Resolution which directs a study of continuing medical education programs for medical relicensure. Drs. Fris-

sell and Chun will represent the Association at meetings of the American Lung Association who are also looking into certification for relicensure.

D. Public Health: Dr. Sia reported that the School Health Committee conducted a three-day seminar on learning problems in the early school age child which was well attended by teachers from the DOE and other pre-schools. The Crippled Children Committee met with representatives of the Department of Health and Department of Social Services regarding the crippled children program. The Substance Abuse Committee recommends that the HMA Council confirm that substance abuse is a medical problem and care rendered should be reimbursed by third party carriers as well as the Department of Social Services.

ACTION:

It was voted to accept the recommendation of the Substance Abuse Committee and to write to the third party carriers and DSS regarding the HMA position.

The Chronic Illness Committee has formed a subcommittee to review hypertension screening and plans a pilot demonstration program combined with the annual diabetes screening program in November. The status of the Council's action of July 13 calling for the formation of a committee to investigate the feasibility of studying hypertension was discussed. Dr. Frissell reported that he has asked the Bureau of Research and Planning to determine whether or not the HMA should continue to take part in federally funded projects as well as look into the housing and personnel requirements of projects. The Chronic Illness Committee was directed by the 1973 House of Delegates to take leadership in pursuing screening for hypertension and therefore felt that the July Council action was not in order.

ACTION:

It was voted to direct the Chronic Illness Committee to investigate the feasibility of studying hypertension in our State.

E. Interprofessional Relations: The Public Affairs Committee recommended an amendment to the publicity code for physicians asking that the physicians be allowed the privilege of editing articles for scientific content and ethical propriety. It was noted that the publicity code governs the code for physicians, not the press, but urged that physicians request editing privileges whenever interviewed.

The continuation of HMA Hotline was discussed. It was recommended that this matter be discussed at the budget session on November 2.

ACTION:

It was voted to recommend that the TV Committee proceed to investigate ways of continuing the program at no expense to the Association.

F. Other Committees: Progress reports were presented on the Cancer Commission, Cancer Research Center, PSRO, and EMCRO. The PSRO discussion centered on the two-year evaluation period that is provided by law but in actuality will be a 15-month period according to recent information. The Council concurred that a letter should be written to Hawaii's congressmen asking their assistance in correcting this as well as pointing out HMA's past experience with our EMCRO project.

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Life in These Parts

Clement Nicory informed us of a recent article in *Today's Health* which points out that Hawaii came out best in a health survey of all 50 states using death rates as criteria (eg, deaths from car accidents and from the combined group of heart disease, strokes and cancer). Hawaii ranked second only to Nebraska in life expectancy, with a 71.55 as compared with Nebraska's 71.95. The article says, "Hawaii's Chamber of Commerce may not know it, but it's got something new to talk about—good health." (Lucky you live Hawaii).

We gleaned from Donnelly's column that our **Harry Arnold, Jr.** has collaborated with **Paul Fasal** of S.F. in a new book, "Leprosy." The authors estimate 10 million known cases of leprosy worldwide, 3,000 in the U.S., and many more unrecognized cases. . . .

Professional Moves

We nearly missed this little big item in June about Mayor Fasi appointing **Paul Gebauer**, City and County Physician. Paul, who was thoracic surgeon at Leahi for 24 years, should be a most welcome addition to the City and County Health Department where **Tommy Chang** as Assistant C & C Physician has been doing a tremendous job upgrading the department.

In October, pediatric cardiologist **Frances Nakamura** relocated to 2525 South King Street where we recently attended **Tom Kobara's** open house for his Accu-Path Laboratories. 2525 South King Street is **Shigeo Natori's** brain child and others locating or already located there are **Roger Ogata**, **Eugene Matsuyama**, **Takakazu Fukumura**, and **George Nagao**. Also in October, GP's **Steven Schepper** and **Louis Perlmutter** associated with the Hawaii Permanente Medical Group and the Kalihi Medical Center, Inc. including **Sydney Fujita**, **Melvin Kaneshiro**, **Roy Kuboyama**, **Roy Niimi**, **James Nishi**, and **Stanley Saiki** relocated to 2055 North King Street.

Elected, Appointed, Honored

In May, we rejoiced when one of our most respected physicians, **Robert Moser** of Wailuku, Maui, was appointed Chairman of the U.S. Food and Drug Administration Drug Experience Advisory Committee. Then in June, we were ecstatic when Bob was named Editor in Chief of the Journal of the American Medical Association. Bob says, "I intend to do what I want to do with JAMA in three years and then come back to resume practice on Maui." We will sorely miss his weekly "Materia Medica" in the Maui News (which we have diligently collected over the years) and his wise and witty scientific contributions to our local Journal as well.

On the medical front, **Sherrel Hammar** was appointed Chairman of the Pediatrics Department at the University of Hawaii Medical School. . . . In October, the following ten surgeons were inducted as Fellows in the American College of Surgeons: **Ignacio Torres**, **Lorene Anastasi**, **Charles Barnes**, **William Davis**, **William Morioka**, **Richard Pang**, **James Penoff**, **Iwao Shiraki**, **William Tashima**, and **Sakae Uehara**. Back in May, **Edward Batterini** of Hilo was installed as a Fellow of the American College of Obstetrics and Gynecology. Also in May, the Hawaii Heart Association elected **Alfred Morris**,

president; **Douglas Bell III**, president-elect; **Danelo Canete**, second vice president. Outstanding public service recognitions went to **Adele Sanidad** and **Samuel Gresham**. In September, the Oahu Unit of the American Cancer Society installed **William Hindle** vice president, and as first term board members, **Andre Choan**, **Rafael de los Santos**, **Gene Wai Doo**, and **James Navin**. In October, **Drake Will** was installed as president of the Hawaii Division of the American Cancer Society, while **Clifford Strachley**, **Reginald Ho**, and **Herbert Uemura** were installed as vice presidents. Honored at its 25th anniversary dinner were past presidents, **Thomas Fujiwara**, **Peter Kim**, **Grover Batten**, **Samuel Allison**, and **George Braeher**. The Hawaii Unit of the American Cancer Society honored **George Bracher** with a 10-year service award and **Reginald Ho** was the keynote speaker at its 14th annual meeting.

On the political front, Mayor Fasi reappointed **Buena-ventura Realica** to the Reorganization Commission and Governor Burns named **Neal Winn** and **Robert Marvit** to the newly established Advisory Commission on Drug Abuse and Controlled Substances. Governor Burns also appointed **John Watson** to the Board of Hearing Aid Dealers and Fitters, and **K. Y. Lum** and **Allen Richardson** to the Medical Advisory Board.

On to miscellaneous fronts. In August, **Henry Manayan** was elected president of the United Filipino Council of Hawaii. In September, **F. J. Pinkerton** received the Native Born Citizen of the Year award. Also in September, Kaiser ophthalmologist **John Corboy** was named Mr. Nude Hawaii at the annual contest of the Hawaii Naturalist Club at its North Shore nudist park in Kahuku. In October, **John Bowen** of Hilo won honorable mention in the 1973 Hawaii County Fair photo contest, and **Paul Barry** of Waianae was one of ten semifinalists in the Hawaii State Jaycee's annual Three Outstanding Young Men competition.

Farewell to a Friend . . .

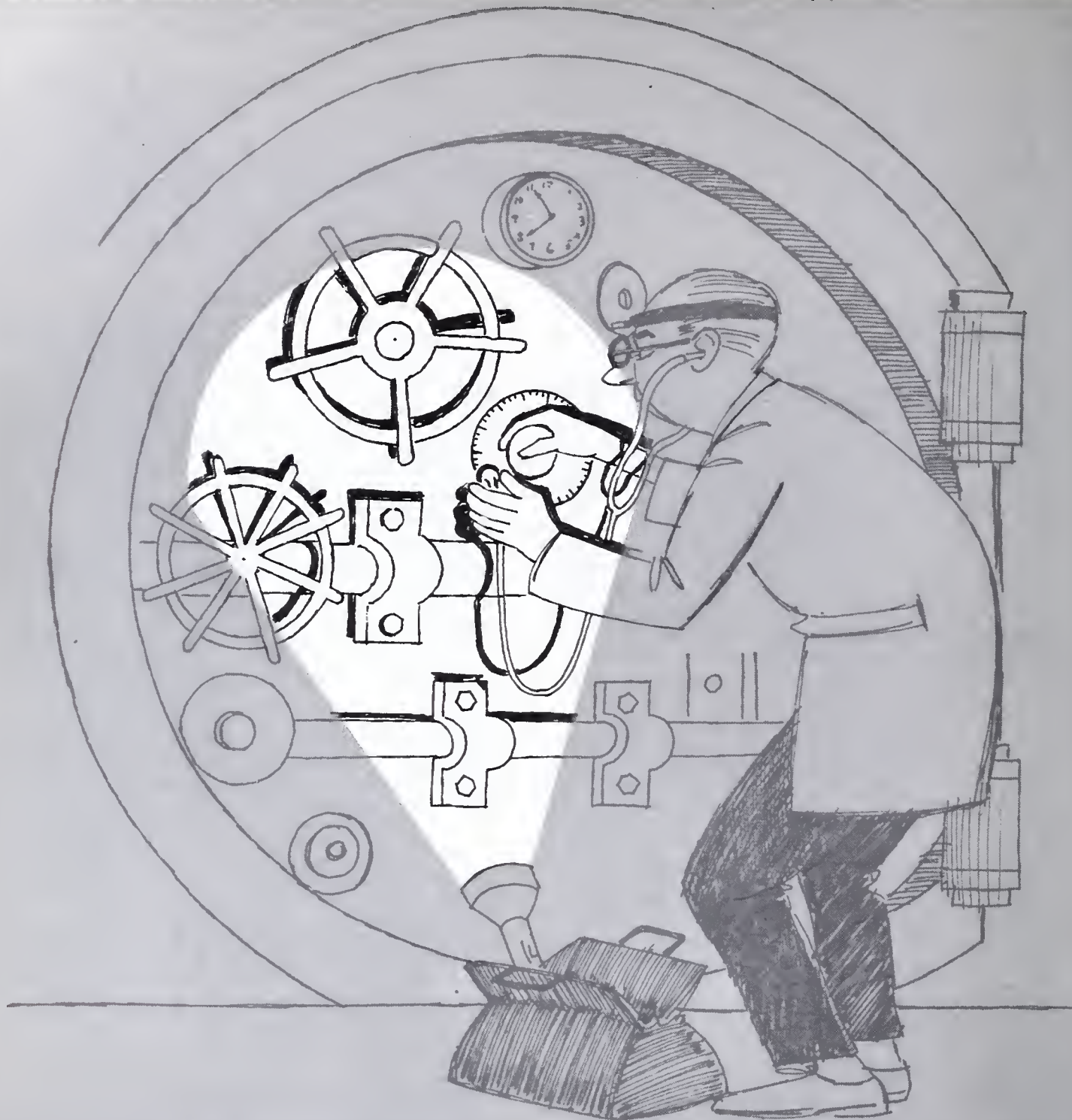
Stan Kobashigawa was a man of stature who in his modest, unassuming way accomplished more in his 46 short years than a dozen of us can achieve in our life times. . . . Stan was a competent, dedicated physician, a Buddhist teacher, a community leader, and a good husband and father. Besides carrying a full practice, Stan went in for renal dialysis three times a week and still devoted time to hospital, medical society, Buddhist church and community affairs. . . . The few lines we scribbled from among the many eulogies heard at the Mililani Memorial Park on a October Sunday tell only part of the unfolding story of this most remarkable man. . . .

A Buddhist leader recalled, "We were discussing the subject of how to prepare for death. . . . Doc said, 'One should not prepare to die. . . . One should live life to the fullest he knows how.'" (Stan died suddenly one night while checking the Pearl City community press, which he ran practically single-handed.)

A community leader, choking with tears, said, "He was a most humble, modest, and respected person. . . . Thank you, Doc. . . . Thank you for sharing your life with us. . . ."

Hospital administrator **Masa Tasaka**: "We at the hospital will long remember this man for his inspiration. . . . We must renew our aspirations to serve our fellow men as he did. . . ."

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Fellow physician **Fred Dodge**: "Stan didn't use his religion as a special coat to put on and take off. . . . He lived it. . . . We were kitchen table friends. . . . I was once a hawk. . . . Stan was a dove. . . . He was a gentle, loving person. . . . He was against killing of any sort. . . . Stan was truly a good man and a real friend. . . ."

Stan's son recalled long serious sessions with his father: "Two things my father wanted me to say. . . . My father did not want to be remembered as a doctor, a community leader, a Buddhist teacher, a radical, or any of the labels that fitted him. . . . My father said, 'When I die, I want to be remembered only as a human being. . . . This would be the greatest compliment to me.' The second thing he wanted said was, 'He wanted to thank all of you for putting up with him. . . .'"

Visiting Physicians

Victor Vaughan, visiting pediatrics professor at Children's in August, spoke on genetic counselling: "Who does it? . . . Everyone does it at some level. . . . But now there are those who call themselves genetic counsellors. . . . Some people get along perfectly well without any genetic counselling at all. . . . There is not only misinformation, but basic misconceptions, eg, in amyotonia congenita. . . . Even a very rare recessive trait will have a surprisingly high carrier rate. . . ."

On eugenic considerations: "This touches on the rights of parents to have children and the rights of children to be born. . . . It's an area of emotional outpouring. . . ."

How to counsel: "Make a shrewd guess and make suggestions in such a fashion that they think it is their own decision. . . . The problem with recessive genes is a different problem. . . . eg, in albinism: The incidence is 1 in every 25,000 babies born which means 1 in 75 population. But even if every newborn gene is removed, the trait can only be removed in 5,000 years. . . . Genetic counselling is a slow process. Do not be disappointed if your advice is not followed."

WINNERS OF THE JOKE TELLING CONTEST AT THE ANNUAL KUAKINI STAFF PARTY:

A **Gary Glover** joke: "I'm originally from Texas. . . . And in Texas, the rancher may be out on the prairie 4 to 5 days at a time. They have a phenomenon known as the 'Northern.' A 'Northern' once came, and froze the ice so quick that the ice was still warm. . . ."

A **Ralph Cloward** joke: "Age is mind over matter. . . . If you don't mind, it doesn't matter."

Another from **Ralph Cloward** repertoire: "When the first astronaut landed on the moon, he found moon people . . . with green horns and green everything. . . . He asked a moon maiden, 'How do you make babies on the moon?' 'Come into the kitchen,' she invited, where she mixed and stirred a batch of green flour, yellow flour, green water and purple shortening. She then shaped the mixture into a moon being, placed it into the oven, and presto! out come an instant moon baby. . . . The moon maiden then turned to the astronaut, 'How do you make babies on earth?' 'Come into the bedroom,' he invited and showed her. . . . When they were through with the ritual, she asked, 'Where's the baby?' 'Well,' he explained, 'it takes nine months.' 'Then, don't just lie there. . . . Keep stirring. . . .,' she demanded. . . ."

Conference Notes

At a Queen's medical conference, resident **M. A. Hoffman** was lecturing brilliantly on the mechanisms of anti-arrhythmic agents. The discussion centered around the changes in membrane potential with the relative change in intracellular and extracellular potassium. When the clinical picture did not correlate well with the hypothesis, M.A. turned to akamai staff cardiologist **Ed Chesne**, and pleaded, "Can you help?" Ed settled the problem forth-

with: "It's certainly very confusing . . ." and said no more. . . .

At another Queen's conference, cardiologist **David Ferguson** presented a preliminary report on his ongoing studies correlating mortality with the degree of left ventricular damage. In his random consecutive series of cardiac catheterization findings on 76 patients, he found that "The degree of left ventricular damage is at least as important as the degree of coronary narrowing—or more so—as a determinant of prognosis." For those interested, his formula is as follows: MEF (modified ejection fraction) equals $D3/2$ minus $S3/2$ divided by $D/3/2$ where D is End Diastolic Area and S is End Systolic Area as measured from ventriculography. . . . Someone in the audience inquired, "What is the mode of death in your patients?" David was grim, "Sudden death. . . . At least half arrive in the ER dead." Medical Director **Jim Orbison** added, "This is true of all coronary deaths . . . 60% die before they reach the ER, anyway."

During a Kuakini tumor conference, the case presentation was that of a 33-year-old Caucasian woman with a small month-old left breast lump which on excisional biopsy and frozen section was found to be adenocarcinoma, and she subsequently had a radical breast done. Pathologist **Grant Stemmerman** proposed, "I feel the approach to breast cancer should be revised. . . . It's desirable to eliminate the frozen section. . . . We must identify the reason for the frozen section. . . . Its asking too much of the surgeon to make a decision on basis of frozen sections. . . . There is a large frequency of metastatic CA of the bone from occult breast CA. . . . An excisional biopsy should be done on an outpatient basis, after which a carefully prepared tissue preparation can be done. If it's CA, then a good medical workup should be done including a bone scan and an immunological and endocrinological workup. . . . After assessing her medically, then the next step can be decided on. . . . We should not be making ad hoc decisions on these ill-prepared patients. . . ."

This gave **Richard Warnich** from Nuclear Medicine a chance to push the total body Tc-Sn EHDP scintiscan (which apparently scans bone, kidney, prostate and lungs) for evaluation of breast CA. We learned that 4 hot spots are osteomyelitis, Paget's disease, old fractures and arthritis, but these can be eliminated from metastatic breast lesions by history, incidence, and conventional x-rays. . . . Dick concluded that any patient with breast CA or has a high suspicion of breast CA should preferably have preop bone scans. . . .

Communication Gap

A 49-year-old unmarried male stock clerk in a supermarket complained of intermittent LLQ pain of 1 year's duration. . . . We asked routinely, "How are your bowel habits?" "I'm constipated." To ascertain the degree of constipation, we asked, "How frequently do you move?" To our surprise, he replied, "Three times a day." In the face of this adversity, we asked bravely, "How hard are your bowels?" "Usually soft." With increasing consternation, we ventured again, "What do you mean by constipation?" Disdainful of our ignorance, he replied smugly, "Why, that's when you feel like moving and pass gas instead." We too suddenly felt like passing gas. . . .

Sportsmen

We wondered with bated breath what happened to **Jack Seaff** in the Boston Marathon since the last news item in April announced that he was not among the first 401 finishers. Then in May, we learned from Hal Wood's sports column the following: "Honolulu's jogging physician finished. And that's a feat in itself. He came across the line in exactly 700th place . . . which isn't bad at

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that, when you consider more than 2,000 started." In June, **Kenneth Fujii** of Kauai, who plays golf daily, won the 1973 Kauai Seniors tournament with a sparkling 75-6-69. In October, we learned that **Richard You** was appointed chairman of the U.S. Olympic Weightlifting Medical Committee. Also in October, **Bert A. Weeks** and partner were second and **L. S. Roekett** and Mrs. Robert Moser were fourth in a duplicate bridge tournament played on Maui. . . .

The 3rd Annual Kuakini Hospital Medical Staff Golf Tournament was held on Sept. 28 with a field of 48. **Naomitsu Tajima**, who had won the 1971 and 1972 awards consecutively, decided not to retire the perpetual trophy and relinquished the title to **Quint Uy**, who shot a sparkling 83-13-70 at Waialae CC. One stroke behind and tied at second were **Paul Tamura**, **Kyuro Okazaki**, **Roy Iritani**, and **Al Paraz**. Third place was shared by **David Sakuda**, **Mike Okihiro** and **H. Yokoyama**. At 4th place were **Tom Fujiwara**, **Ike Nadamoto**, **Diek Omura**, **Ron Oba**, and **Paul Marumoto**. **Mike Okihiro** shot low gross with a 43-38-81 and high net was won by **Shozo Ogawa**, who shot an incredible 126 with a 23 handicap for a net 103. Not far behind was **Toshihiko Kawasaki** with a net 98 and a gross 121.

At a Member-Guest Day at WCC in November, **Cool Wakai** shot a low net of 69 for members in the afternoon flight and **Kiku Kuramoto** and partner were tied at 1st in team low net at 63 in the morning flight. **Hideo Oshiro** won a prize for being closest to the pin on the 16th hole, landing only 2 feet 3 inches from the cup.

Miscellany

A Union platoon which had infiltrated into the South was drenched by a heavy storm. Nightfall was approaching and they sought shelter at the first town they reached. The captain knocked at the first home and inquired politely if some of his men could billet for the night. The gracious southern lady apologized that she had room only for one soldier. The captain turned to the most bedraggled of his men and ordered, "Private Peters, you stay here tonight." The next house was a converted old mansion, and a rather gaudily dressed middle-aged woman answered the door bell. There seemed to be a bevy of younger women in the back peering eagerly at the rain soaked men. . . . When the captain asked if she could accommodate some of his men, the madam was enthusiastic, for with southern men off to war, business had been poor. . . . "Of course, dearie, we can take your whole patrol. . . . How many men do you have, Captain?" He answered, "I have 48 men, without Peters." "How about that!" she exclaimed. (An original by **Ben Tom**).

* * *

Lani: "Gee, Nani, I haven't seen you for a long time. . . . How come?"

Nani: "I was in bed with arthritis."

Arthritis sounded like Art Riders to Lani, so she scolded, "That's your whole trouble, Nani. . . . You only like haoles. . . ." (Contributed by **Bill Dang**).

Doctors in Print

We feel that the HAWAII MEDICAL JOURNAL could rank with the best in scientific content, but unfortunately our physicians prefer to send their articles away to more sophisticated specialty journals (Not that we blame them. . . . But we should be entitled to at least a brief summary or a reprint thereof so fellow physicians will know of their contributions). The following are only a few of the articles printed elsewhere:

Grant Stemmerman, **Takuji Hayashi**, "Colchicine Intoxication" (A reappraisal of its pathology based on a study of three fatal cases) *Human Pathology*, Vol. 2, No. 2, June '71; **Robert Jim** et al "Fast Haemoglobin

Variant Found in Hawaiian-Chinese-Caucasian Family in Hawaii and a Chinese Subject in Taiwan" *Vox Sanguinis* 22:469-473 (1972); **Richard Lee** et al, "Stomach Cancer Among Japanese in Hawaii" *J Natl Cancer Inst* 49:969-988, 1972 (Ed: Elevated risks are described for Issei and Nisei users of pickled vegetables and dried salted fish); **Robert A. Nordyke**, "Metabolic and Physiologic Aspects of I131 Rose Bengal in Studying Liver Function" *Seminars in Nuclear Medicine*, Vol. 2, No. 2 (April) 1972; **Fred I. Gilbert, Jr.** and **Robert Nordyke**, "Automated Multiphasic Health Testing in Multispecialty Group Practice" *Preventive Medicine I*, 261-265 (1973).

For several years, we kept running into a quiet unassuming physician in every medical conference we attended so finally we introduced ourselves and learned that he was **Kanae Kaku**, MD, MSPH, who was soon to return to Japan as Chief Pediatrician at Hiroshima Teishin Hospital. We learned that he had compiled a "Mortality Statistics for Categorical Diseases, Hawaii 1969" which was categorized for age groups, sex, and ethnic groups and for each of the following categories: Neoplasm of Buccal Cavity, Pharynx and Respiratory System, Digestive Organs and Peritoneum, Stomach cancer, Neoplasm of Liver, Pancreas and GB, Breast Carcinoma, Urogenital organs, prostate and leukemia and lymphosarcoma. . . . When we expressed concern that he was returning to Japan and would be lost to Hawaii, he expressed a wish to return if he possibly could.

Miscellany

In the recent Olympic Games, a Russian rasser was named Pretzel Maker because he would entwine his opponents' limbs like pretzels and render them helpless. The Pretzel Maker met the US champ and soon had the American tied up in pretzels and just when all seemed lost, the Russian gave a horrendous scream and fell prostate on his back in terrible agony. The American, still knotted into a pretzel, was asked, "How did you manage this victory?" "Well," he said, "The only movable part I had left was my jaw. . . . All seemed lost when I suddenly looked up and there was opportunity dangling above. . . ." (By our master joke teller, **Bernie Fong**. . . . As told at a Medicare Review meeting).

An adventurer was planning a journey into the Sahara, so he negotiated with a local Arab camel dealer for a seven-day camel. He took his newly acquired camel to the water hole and had it drink its fill, then ventured out into the desert. But 2-days out, he noticed that the camel was visibly dehydrated, exhausted and he was forced to turn around and barely made it back to the oasis. The irate adventurer confronted the camel dealer and said, "You deceived me. . . . You sold me a 2-day camel when I asked for a 7-day camel." "Sahib, you have a 7-day camel. . . . It's how you fill up the camel that's important. When the camel is drinking at the water hole, Sahib must take two large rocks and smash the camel's testicles between. . . . Then slurrrp! He involuntarily drinks deeply and becomes a 7-day camel." "But doesn't that hurt?" "Not a bit—if you keep your thumbs out of the way," replied the wise Arab. . . . (Another **Bernie Fong** special).

During WWI, a Frenchman, an Englishman and a Polack were caught and sentenced to death by guillotine for spying in Paris. As they were led to the execution stand, the judge asked the Frenchman, if he had any last request. The Frenchman said, "I wish to die looking at the French flag. Vive le France!" The wish was granted and the guillotine blade came screeching down, and by some miracle, it stopped an inch short of the Frenchman's neck. The dumbfounded judge granted the Frenchman a reprieve. Next, the Englishman was escorted to the stand and granted a last request. The Englishman said, "I too wish to die looking at the English flag. . . . Long live the Queen!" Again, the guillotine blade came swishing down and stopped after nicking the Englishman's

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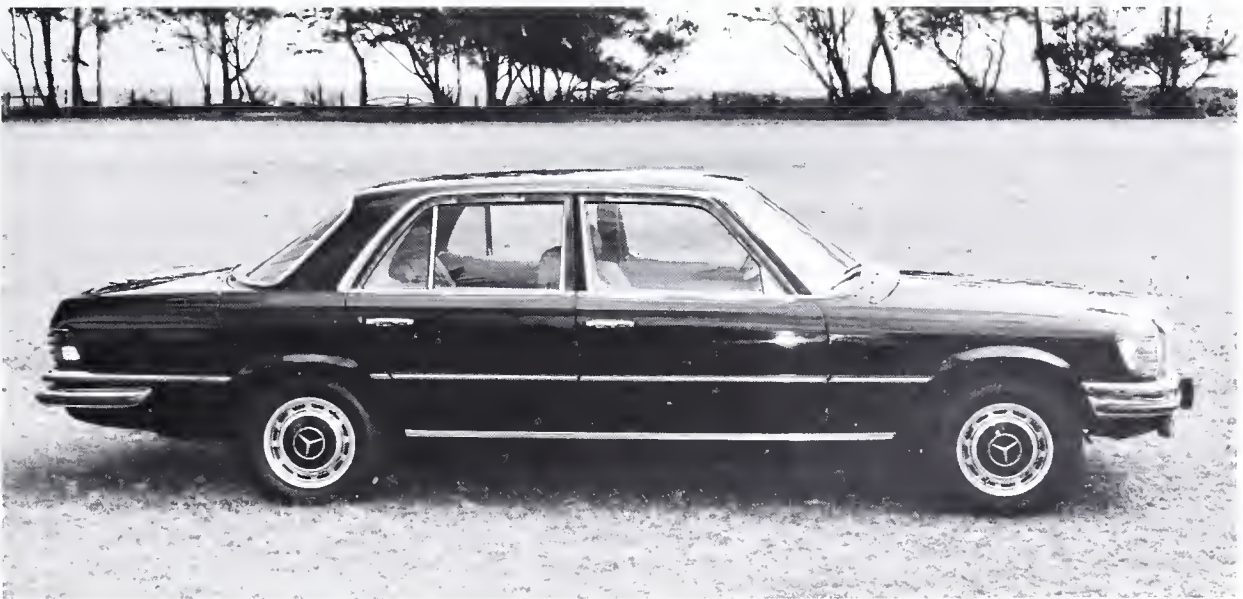
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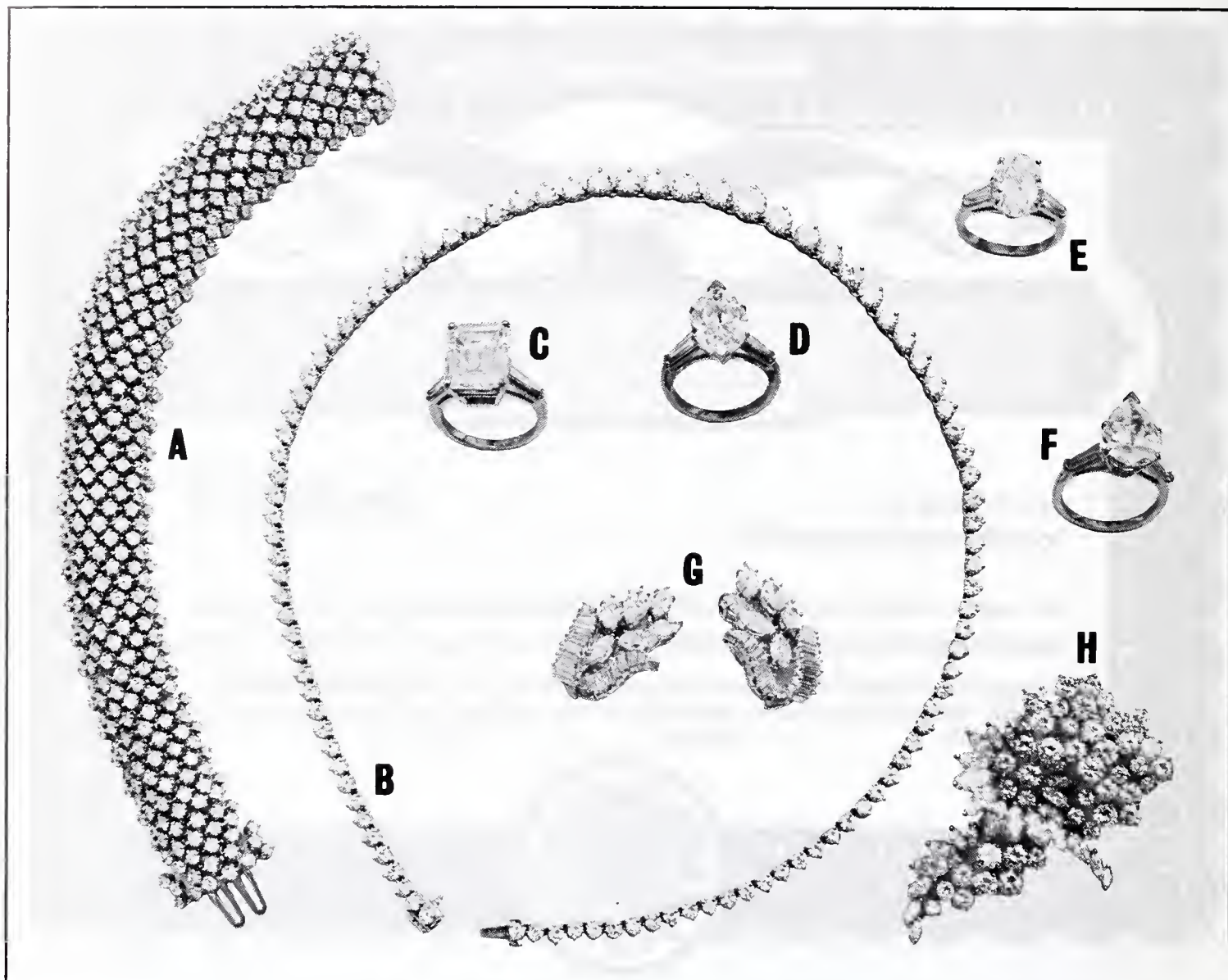
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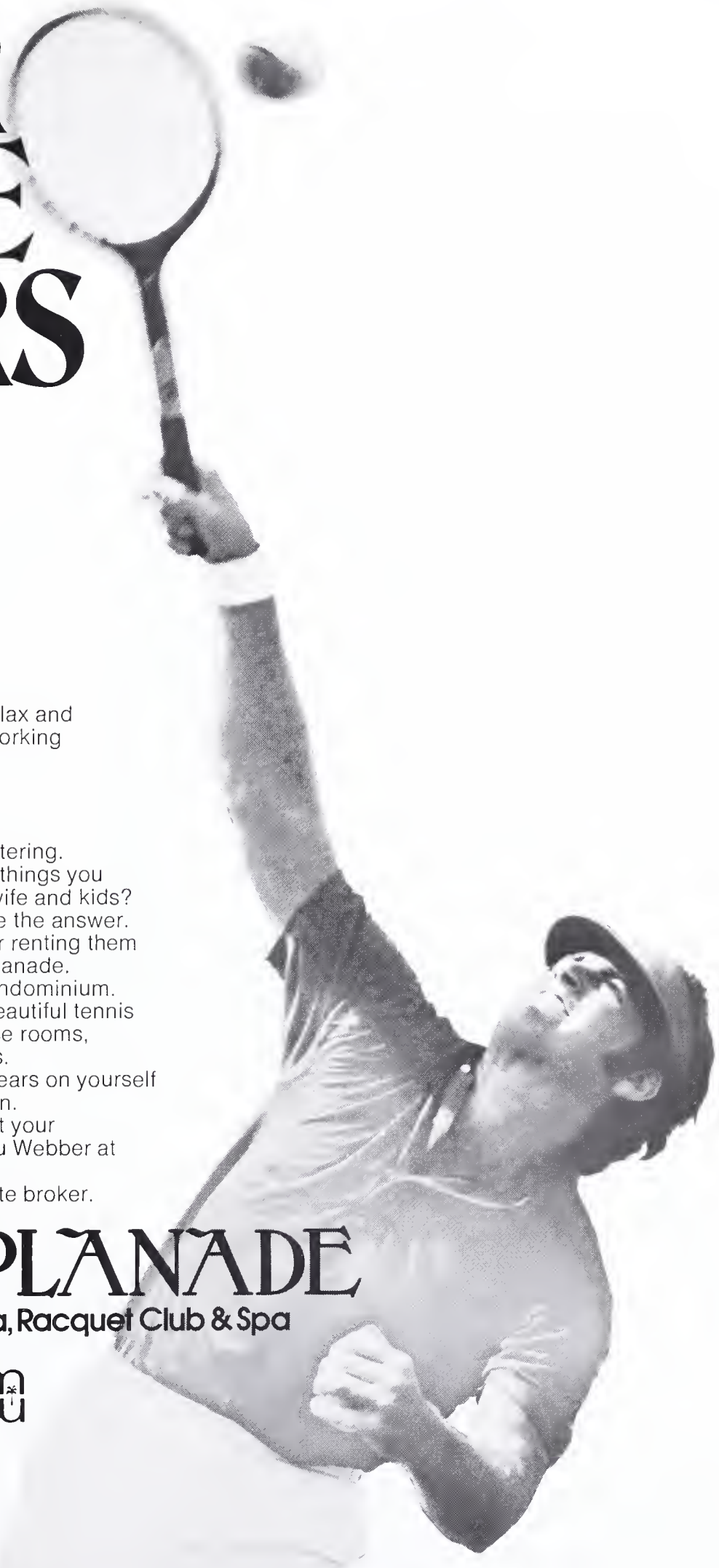
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neck only superficially. . . . The judge decided that this was an Act of God and granted another reprieve. There was a sudden commotion below the stand and the Polack was struggling with his escorts. . . . He yelled, "Oh, no! You are never going to get me up there until you get that contraption fixed!" (Walter Young's repertoire).

"Why is semen white and urine yellow?" "So you would know whether you are coming or going. . . ." (Inouye of Makai III).

"What's a mixture of prune juice and vodka?" "Pile Driver." (Nabalta of CCU).

"Keep America Clean . . . Eat a Pigeon." (Cartoon on doorway to Frank Fukunaga's office).

"When you assume, you make an Ass out of U and Me." (Likewise Inouye of Makai III).

"What's a mixture of prune juice and vodka?" "Pile Driver." (Nabalta of CCU).

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Personal Glimpses

For several years, we have felt that comfort was of prime importance and discarded the suit and necktie for cool permapress trousers, hush puppies, and drip-dry Aloha shirts. . . . But then with our 50th birthday, our children hinted that we should get with the times, so we purchased knit shirts, knit pants, and a sport coat. . . . So we felt obliged to keep up with the trend, but then we decided to take it in sort of easy stages. . . . For the first two weeks, we tucked in our dress knit shirts and sweltered in the knit trousers. Then we took the final step after the period of acclimatization and put on a tie and sport coat for morning hospital rounds. . . . The reaction was overwhelming. . . . Grant Stemmerman looking comfortably in his Aloha shirt complained, "What's happened to you? You make me feel sick. . . ." In the corridor we met Mel Kaneshiro who inquired, "How cum? You going to court again?"

THE "KI" AND "DON'T SHATTER THE GLASS PANE" SYSTEMS OF GOLF. . . .

We regard that July 28 afternoon at Mid Pac a most eventful day in our life. . . . Not only did Tom Kobara make his hole-in-one and Dick Lam pitch in a 50-yard eagle on the 16th hole, but we were introduced to the "Ki" system of golf. We had inadvertently chided Hideo Oshiro for not telling us what the secret to his power drives was. And once started, Hideo is irrepressible as you well know. . . . He launched into the historical aspects of his own exposure to the "Ki" system, viz that he had heard of the system from Don Maruyama who had also indoctrinated a once-skeptical Francis Kaneshiro. According to Hideo, Francis became such a convert that he even insisted on meeting personally the founder of the Ki School of Aikido when he was recently here in Hawaii. Perhaps you are wondering as we did how the Ki School of Aikido was related to golf. . . . It is not. . . . In fact there is no book written on the "Ki" school of golf. . . . It is a pure adaptation of the "Ki" from the martial arts to golf, according to Hideo, and one schools himself in the principles of "Ki" by doing his own reading. . . . Hideo recommends a book on Aikido and perhaps a book or two on Zen as supplemental reading. However, we insisted we did not have the time to do our own reading, so Hideo imparted to us some of the essentials which are described herein: "As one approaches his ball on the fairway or the tee, he inhales deeply, preferably with his arms akimbo, but since a golfer has a club, he holds the club overhead with both arms outstretched. While doing so, one focuses his mind's eye on a point exactly 2 inches below his navel. . . . This is the critical 'Ki' point. . . . Keeping his mind focused on that 'Ki' point, the golfer goes

through mechanics of a golf swing. . . . He regulates his breathing and at the precise moment when mind and body have become as one, he takes a deeper breath, exhales, then swings. . . . And whammo! Mysterious forces propel the ball into infinity. . . . We tried these fundamentals, and we became immediate converts. . . ."

Then, the inevitable happened. Two days later and 10 minutes before tee time at the 14th Annual Medical Arts Tournament, our Ben Hogan disciple, Nobu Nakasone, cornered us on the first tee and explained to us his "Don't Shatter the Glass Pane" system of golf (an obvious Nakasone adaptation of the Ben Hogan principle). According to Nobu, one imagines a display-window-sized glass pane with a hole to accommodate his head, resting on his shoulder, inclined at the proper angle. Now the trick is to rotate one's shoulders, arms, and club so that at no time does any portion rise above this imaginery glass pane which would immediately shatter if done wrong. . . . The tragedy we were soon to learn was that the "Ki" System and the "Don't Shatter the Glass Pane" system are each guarded by jealous genies who are not compatible. . . . Our very first drive landed into the left side ditch. Rather than taking a stroke for unplayable lie, we felt superhuman and took 3 more strokes to simply get out of the ditch. On the 3rd hole, the jealous genie caused our ball to disappear on the fairway. On the 5th hole, the genie's magical powers pulled the ball into the canal. Each time we putted, more mysterious forces kept the ball from dropping into the hole. On the 13th hole, a perfectly-hit ball sailed over the trees and never reappeared.

And so it went all day, but all was not lost, for apparently the two genies finally compromised and forgave us our trespasses. For our genial tournament Chairman Art Salcedo awarded us a digital stereo clock radio for our high net. Our eternal thanks to Hideo Oshiro for introducing us to the "Ki" System of Golf and to Nobu Nakasone for his "Don't Shatter the Glass Pane" System. Incidentally, anyone in the market for a new set of Lynx clubs?

Book Reviews continued from 398

Nānā I Ke Kumu (Look to the Source), Vol. 1

By Mary Kawena Pukui, E. W. Haertig, M.D., and Catherine A. Lee, Hui Hanai, an Auxiliary of Queen Liliuokalani Children's Center, Honolulu, Hawaii, 1972.

SUPPOSE YOU were responsible for counseling someone of Hawaiian descent who told you that *tūtū* had appeared to her several nights ago and talked with her. You might be perplexed as to how much of this was "reality" and how much might be symptomatic and thus not know how to proceed.

This volume apparently was written in response to such problems. The authors in cooperation with the Hawaiian Culture Committee present in these pages much of what is known of Hawaiian traditions pertaining to names, ancestors, gods of the family, curses, skin sensations and other such signs, visions, possession, family conflicts, ho'oponopono, death, and related topics. The information comes from published sources, such as Kamakau and Fornander and from present-day informants, foremost of whom is the senior author. Interpretations are offered as to how these traditions may be involved in the problems of today's part-Hawaiians. Brief excerpts of case summaries illustrate the interpretations.

Any counselor will find this an invaluable source of information. Experts may disagree as to how much of today's beliefs and behavior reflect tradition, and may doubt that symptoms can be separated from traditions as neatly as the book attempts to do. But all will find the book enlightening. Every student of Hawaii will be deeply indebted to the authors and the Hawaiian Culture Committee for this book. Every encouragement should be given to more efforts such as this.

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The Executive Committee of the
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The Board of Directors of the
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Joint Statement on Antisubstitution Laws and Regulations

The purpose of this statement is to affirm the support of the participating organizations for the laws, regulations and professional traditions which prohibit the unauthorized substitution of drug products.

Traditionally, physicians, dentists and pharmacists have worked cooperatively to serve the best interests of patients. Productive cooperation has been achieved through mutual respect as well as a common concern for the ideals of public service. This mutual respect has been reflected, in part, by joint support over the years for the adoption and enforcement of laws and regulations specifically prohibiting unauthorized substitution and encouraging joint discussion and selection of the source of supply of drug products. The basic principles of medical, dental and pharmacy practice are thus utilized and preserved in the interest of patient welfare.

The antisubstitution laws have not obstructed enhancement of the professional status of pharmacy any more than they have in and of themselves guaranteed absolute protection from unsafe drugs, or freed physicians, dentists and pharmacists from their responsibilities to patients. As a practical matter, however, such laws and regulations encourage inter-professional communications regarding drug product selection and assure each profession the opportunity to exercise fully its expertise in drug usage, to the advantage of patients.

Physicians and dentists should be urged to increase the frequency and regularity of their contacts with pharmacists in selection of quality drug products, recognizing that

economies to patients can be improved through such communication, taking into account the patients' needs. The pharmacist's knowledge of the chemical characteristics of drugs, their mode of action, toxic properties and other characteristics that assist in making drug selection decisions should be utilized to the fullest extent practicable by physicians and dentists in serving their patients.

Since drug product selection entails knowledge derived from clinical experience, the physician's and dentist's roles in product selection remain primary and do not permit delegation of decisions requiring medical and dental judgments. A broader role in therapy will evolve for pharmacists as improved understanding and cooperation among the professions continue to grow.

There has been no evidence that there are convincing reasons to modify or repeal existing laws and regulations prohibiting the unauthorized substitution of another drug product for the one specified by a prescriber. It is our belief that such laws and regulations merit the joint support of the medical, dental and pharmaceutical professions and the pharmaceutical industry.

Add your opinion to the weight of other professionals and send it to your state assemblyman or legislator.

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Our “Angels”

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Hawaii Medical Ass'n continued from 400

REPORT OF THE FINANCE COMMITTEE AND TREASURER

The financial statement for August was reviewed by the treasurer. The Finance Committee is preparing a preliminary budget for the November 2 budget session. The special assessment receipts were reviewed: 535 members have paid the assessment as of September 14.

LETTERS REQUIRING ACTION

A letter of support was requested for the Pacific Health Research Institute Study on the Prevention of Coronary Heart Disease.

ACTION:

It was voted to endorse the study.

OLD BUSINESS

Dr. Frissell informed the Council that he has asked Dr. Elisabeth Anderson to serve as Assistant to the President for the coming year.

ADJOURNMENT

The meeting adjourned at 10:00 P.M.

R. VARIAN SLOAN, M.D., *Secretary*

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Jan. 7-11, 1974

WORKSHOPS IN THE PHYSIOLOGY, DIAGNOSIS AND TREATMENT OF ELECTROLYTE AND ACID BASE DISORDERS, University of Pennsylvania School of Medicine, Philadelphia, Pa.

Jan. 9-12, 1974

INFECTIOUS DISEASES: NEW DEVELOPMENTS, University of California, San Diego, Calif.

Jan. 21-23, 1974

CLINICAL APPLICATION OF RECENT ADVANCES IN MEDICINE, Oschner Medical Clinic, New Orleans, La.

Jan. 21-25, 1974

HEMATOLOGY-1974, University of Miami School of Medicine, Miami, Fla.

Feb. 27-Mar. 1, 1974

CARDIOLOGIC PERSPECTIVES FOR THE INTERNIST: 1974, Baylor College of Medicine, Houston, Tex.

Mar. 4-7, 1974

THE PHYSIOLOGICAL BASIS FOR CLINICAL DISEASE, University of Texas, Southwestern Medical School, Dallas, Tex.

Mar. 11-15, 1974

CURRENT CONCEPTS IN DIAGNOSIS AND MANAGEMENT OF RENAL DISEASE, Cornell Medical Center, New York, N.Y.

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